DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

SECOND SESSION

ON

S. 2248

AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 1983 FOR PROCUREMENT, FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, AND FOR OPERATION AND MAINTENANCE FOR THE ARMED FORCES, TO PRESCRIBE PERSONNEL STRENGTHS FOR THE ARMED FORCES AND FOR CIVILIAN PERSONNEL OF THE DEPARTMENT OF DEFENSE, AND FOR OTHER PURPOSES

PART 2

DEFENSE MANAGEMENT REPORT

ARMY PROGRAMS

NAVY-MARINE CORPS PROGRAMS

AIR FORCE PROGRAMS

FEBRUARY 9, 10, 11, 25; MARCH 26; APRIL 16; MAY 10, 1982

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DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

TUESDAY, FEBRUARY 9, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

MANAGEMENT AND BUDGET ISSUES

The committee met in open session, at 10:15 a.m., pursuant to notice, in room 1202, Dirksen Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Warner, Humphrey, Quayle, Byrd of Va., Nunn, and Levin.

Staff present: Rhett B. Dawson, staff director and chief counsel; Frances J. Sullivan, minority staff director; James F. McGovern, general counsel; Paul C. Besozzi, minority counsel; Brenda K. Hudson, assistant chief clerk; Louis W. Arny, Michael B. Donley, Robert S. Dotson, Frank J. Gaffney, David S. Lyles, José E. Martinez, Anthony J. Principi, Patrick L. Renehan, and Carl M. Smith, professional staff members; Mark B. Robinson, research assistant; Ann E. Sauer, special assistant; and Kimberly A. Manning, staff assistant.

Also present: Dennis P. Sharon, assistant to Senator Goldwater; Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Don Imgram, assistant to Senator Quayle; Michelle Robbins, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Greg Pallas, assistant to Senator Exon; Peter Lennon, assistant to Senator Levin; and Faisal Keblawi, assistant to Senator Thurmond.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The meeting will come to order.

The committee meets this morning to continue its review of management and budget issues relating to the fiscal year 1983 defense budget.

We are pleased to have before us the Honorable Charles Bowsher, the Comptoller General; Walter Sheley, Director for Mission Analysis and Systems Acquisition; and Werner Grosshans, Deputy Director for Procurement, Logistics and Readiness of the General Accounting Office.

Having published numerous defense-related reviews and audits and testified before our subcommittees on several occasions, the GAO is no stranger to this committee. However, today marks the first time the GAO has been asked to present testimony on a broad management basis before the full committee.

The request for GAO to appear at a prominent point in the committee's budget review is based on an appreciation of the role GAO will play in monitoring management and accounting improvement at DOD during a period of significant change.

On behalf of the committee I have already asked Mr. Bowsher to start three audits, which are, first, a review of the $5 billion savings in fiscal year 1983; second, the claimed $753 million that might be saved by authorizing two nuclear aircraft carriers this year; and third, a review by GAO of each and every contract proposed to be put into multiyear procurement in the next fiscal year.

In addition, a fourth request has been made to GAO to review compliance with the so-called Nunn amendment on unit cost reports and, over time, suggest any improvements needed, if any, to the reporting system.

Finally, it is hoped that Mr. Bowsher and his staff will provide some further suggestions to this committee that will assist us in our scrutiny of the budget sent to the Congress yesterday.

Mr. Bowsher, thank you very much for being here today. Your prepared statement will be included in full in the record. You may either read it or you may summarize it if you choose, and then we will proceed with questions. If you would like to refer to any of the members of your panel, please do so at any time. Mr. Bowsher, please proceed as you see fit.

STATEMENT OF HON. CHARLES BOWSHER, COMPTROLLER GENERAL OF THE UNITED STATES, ACCOMPANIED BY WALTER SHELEY, DIRECTOR FOR MISSION ANALYSIS AND SYSTEMS ACQUISITION; AND WERNER GROSSHANS, DEPUTY DIRECTOR FOR PROCUREMENT, LOGISTICS AND READINESS OF THE GENERAL ACCOUNTING OFFICE

Mr. BOWSHER. Thank you, Mr. Chairman and members of the committee. I am pleased to have this opportunity to discuss with you the Department of Defense initiatives for improving its management of weapons systems acquisition programs and to offer some suggestions as to how the General Accounting Office can be of greater assistance to the committee and to the Congress.

Over the next 5 years DOD is planning expenditures of $1.5 trillion to acquire new and update old systems, to enhance our military readiness and to improve the quality of life for our military personnel. Your committee will play a large part in assuring that these resources are invested and managed wisely.

I share your concerns regarding accountability for these expenditures. We at the General Accounting Office stand ready to assist you in assessing how well the Department discharges its responsibilities.

DOD MANAGEMENT IMPROVEMENT INITIATIVES

Last March the Deputy Secretary of Defense established a special steering group to make recommendations for improving management of weapon system acquisitions. On April 30, 1981, he announced the adoption of some 31 specific management initiatives directed toward reducing costs, stabilizing acquisition programs, increasing support and readiness, shortening acquisition time, and improving the acquisition milestone progress review process.

DOD adopted a comprehensive implementation plan covering legislative changes, rewriting defense directives, identifying weapons systems for application of specific initiatives, and redirecting personnel. Acquiring weapons systems is an expensive, time-consuming, and complex process, demanding considerable managerial skills.

The sheer size of DOD requires time for new policy and procedures to permeate downward through the many thousands of people involved in the process. Attitudes and established patterns of operation must be changed. Informing people alone on what is now expected is not enough. Persistent, aggressive follow-up and examination of results are essential.

All of the initiatives have merit. Several, in my opinion, are key. First, I would like to talk about costs.

WEAPON PROGRAM COST GROWTH

There has been, I know, a major concern in Congress for years over why the costs of major weapon system acquisition programs usually exceed earlier estimates. The investments to acquire and operate these systems take a heavy portion of our budgetary resources. Currently, the Armed Forces are going through the largest modernization program in our history in making up the inventory shortfalls caused by obsolescence and the Vietnam War.

At September 30, 1981, there were 45 major acquisitions in development and production being reported in DOD's Selected Acquisition Reporting System, sometimes known as the SAR system. These acquisitions were estimated at $304.7 billion, of which about $161.9 billion represents cost growth over development estimates. And there are many other systems in early development which are not included in these figures. The MX and the B-1 bomber programs are two examples.

We can expect to have these systems experience significant cost growth also, if for no other reason than inflation. The Department recognizes the need for aggressive action directed toward the control of cost growth.

Historically, cost estimates on Federal acquisitions have been optimistic. There is invariably general optimism as to the system's capacity to resolve technical problems, to meet schedules, and to control cost. GAO has made a number of recommendations over the years toward the development of better control over the cost growth problem. It is essential, in our view, that DOD provide for:

First, an adequate data base for readily retrievable cost data for similar systems;

Second, an effective independent review of cost estimates, including judgment by top officials as to the realism of the estimates upon which decisions are based;

Third, more complete documentation of cost estimates, coupled with feedback results, to provide a basis for comparing costs achieved with those estimated;

Fourth, estimates in a range of probable costs, including a single-point best estimate; and

Fifth, recognition of inflation in the budget year setting forth future costs as a range of estimates depending on various inflation rates and spending profiles with estimates being adjusted yearly to include actual inflation experienced.

Optimistically low inflation rates in developing cost estimates count for considerable program instability and cost growth. For the past 9 years DOD has used the gross national product, which is the GNP, implicit price deflator, to project inflation and further adjust its estimates so as to be further consistent with administration overall economic assumptions. In recent years defense purchase prices have risen faster than most goods and services as measured in the GNP and the OMB-directed rates for inflation have been below actual inflation. DOD is aware of the problems created by using low inflation rates in its estimates.

STABILIZING ACQUISITION PROGRAMS

I am happy to say that in this budget we do see some signs where they have made some changes on this issue.

A recent DOD acquisition improvement task force report concluded that the ultimate success of the improvement initiatives will be largely determined by the degree to which programs are stabilized. And I agree with this.

PROGRAM INSTABILITY

Program instability, particularly funding instability, has long been recognized as a severe problem in managing weapons system programs. Often, instability stems from demands for new systems beyond available resources, leading to unrealistically low cost estimates and the consequent need to continually adjust for competing demands.

Development and initial fielding of a new weapons system often requires 8 to 12 years. During that time there are many opportunities for the Congress and the administration to make program and funding changes.

In making changes, both DOD and the Congress must be attentive to the ramifications of the change on program costs. Stable funding is essential. Most programs span several Congresses and more than one administration. Personnel turnover, changing concepts of need, and fluctuations in funding pose difficult problems. The Congress will have to do its share in helping DOD create and apply a system of good business practices.

SUPPORT AND READINESS REQUIREMENTS

Regardless of how well DOD controls costs and more accurately informs the Congress about probable cost, a weapons system's value is measured by the extent to which it can be supported in the field and by its contribution to our overall readiness posture.

Initiative No. 9 is specifically directed toward improving weapons system support and readiness. The services and individual program managers at present are primarily concerned with immediate benefits and the priority of cost, schedule, and performance records over other considerations such as future support and readiness requirements.

Improving support planning requires long-term commitments which are often sacrificed or not considered under the pressures to develop and field new systems. We must be prepared to make the necessary up-front investments so that when systems are fielded, they can be supported and meaningfully contribute to our readiness posture.

GAO ASSISTANCE

I would now like to turn to how GAO can be of service to this committee of Congress in the oversight of DOD weapons acquisition management. I can assure you that we will continue to provide reports on important defense issues as we have in the past.

In addition, we can provide:

First, case-by-case analyses of reports submitted by the Office of the Secretary of Defense to the Congress pursuant to section 917 of the Department of Defense Authorization Act, 1982, referred to as the Nunn amendment;

Second, analyses of reports submitted by the Secretary of Defense to the Congress pursuant to section 918 of the Department of Defense Authorization Act, responding to GAO recommendations;

Third, assistance in evaluating programs proposed by DOD as candidates for multiyear procurement;

Fourth, periodic reports on DOD's efforts and real progress in implementing the Secretary's management improvement initiatives;

Fifth, surveillance over a limited number of weapons programs to report information when needed on a timely basis; and

Sixth, analyses of selected issues in the fiscal year 1983 defense budget.

In addition, I have established a task force at GAO to review other possible areas in defense where the GAO can be of help to the Congress.

I would like to return to the committee later in the year to discuss in detail the initiatives developed by this task force and the progress of work we will have undertaken in the implementing of these initiatives.

This concludes my prepared statement, Mr. Chairman. I would be pleased to respond to any questions you or other members of the committee may have.

EFFECTIVENESS OF MANAGEMENT INITIATIVES

Chairman TOWER. Thank you, Mr. Bowsher.

DOD is apparently making every effort to improve defense acquisition policy, and GAO has filed several reports in this area. How would you assess the administration's effectiveness thus far? And what, in your view, remains to be done?

Mr. BOWSHER. We believe that they are making progress, and we believe that the initiatives appear to have merit. And so we are encouraged by the movement that they are making. It is hard to make any real assessment as to how the initiatives are working out, but we are going to monitor them, and we will be able to report to you.

THE NUNN AMENDMENT

Chairman TOWER. What recommendations do you have regarding the implementation of the Nunn amendment?

Mr. BOWSHER. We would like to review those, as you had suggested in your letter to us, as they come over to the committee. We will look at them.

Chairman TOWER. You have not had an opportunity to make that assessment?

Mr. BOWSHER. No. We just started doing that.

EFFECT OF INCREASED FISCAL YEAR 1982 FUNDING

Chairman TOWER. Mr. Bowsher, being able to determine the level of funding to be given to defense in 1983 and determine how efficiently resources have been applied for 1981-82 defense increases is one of the main problems in the Congress. I understand that GAO may have some preliminary findings in that regard. Is that correct?

Mr. BOWSHER. Yes. Werner Grosshans, here on my left, is in charge of that review. I will let him say a few words at this time.

Mr. GROSSHANS. Yes, Mr. Chairman. What we have tried to do in anticipation of the type of question you just asked is we have started an effort to try to see what DOD has done with the moneys that you have appropriated.

And what we are trying to find out is exactly did the moneys go to the areas that they said they needed them for, were they spent in the areas, and did it solve those type of problems they allege they needed the money for.

What we have tried to do is use 1980 as the base year, since most people agree that was the last of the post Vietnam-era budgets. As you may recall, part of the 1981 budget did bring about significant increases in the sustainability and the readiness areas.

So basically, what we looked at then is the $72 billion increase from 1980 to 1982 timeframe. By and large, what we tried to do is look at each of the appropriations where DOD said they would focus the money and what their priorities would be.

We generally found that in the investment accounts in the R.D.T. & E. accounts, they pretty much followed the strategy that they laid out. Not all of the procurements were made in the most economical buys. Of course, two alternatives readily suggest them-

selves: Coming back for more money, or cutting out more of the programs.

CONCERN ABOUT O. & M. FUNDS

In the O. & M. area we had some reservations and concerns, primarily the accountability of those moneys. There is a considerable amount of flexibility that DOD has in spending the O. & M. funds. We had some concerns in several of the areas. We looked at base maintenance activities. We looked at the depot maintenance account. Those were two of the largest increases that received moneys for this 2-year period.

Some of our observations basically were that maybe some of the actions taken were a bit too quick, and there is a concern whether the basic underlying assumptions were valid.

Let me illustrate just one. In the depot maintenance area, for example, DOD's objective was to reduce the backlog to a zero level. This may be overly ambitious, because in order to workload carcasses coming back to be overhauled, one should group those in economic batch lots to run them through the depot. This cannot be accomplished unless one has a reasonable backlog. Therefore, I think the objective was overly optimistic.

Second, trying to work that backlog down in a 1-year period resulted in having a lot of temporary people, which basically reduced the productivity in those depots.

Those are some of the observations that we basically came up with during this effort.

Chairman TOWER. You mentioned the economic acquisitions. Sometimes I think we in the Congress could be partially blamed by setting the rate. In other words, we, too, want to look at what we are doing that imposes additional costs.

Mr. GROSSHANS. Yes, sir. When we briefed your staffs, that point was made. We tried to go back and more clearly identify those areas where DOD reduced quantities from the ideal rate and those where Congress may have had a hand in trying to reduce some of the quantities.

Chairman TOWER. We want you to look at all of the things that we do in terms of whether or not some of our actions have resulted in increasing costs. While analyzing the Department of Defense we should analyze ourselves.

Mr. GROSSHANS. We will do that.

Chairman TOWER. Is it true that GAO has reached preliminary findings indicating that DOD had no trouble absorbing defense increases?

GAO LEVEL OF EFFORT ON DEFENSE MATTERS

Mr. BOWSHER. That is correct, Mr. Chairman.

Chairman TOWER. Mr. Bowsher, can you provide the committee with the background on the level of effort that goes into monitoring DOD? I understand some 1,500 people are involved in the defense area and that this represents about 50 percent of the total GAO work force. Is this correct? And will this level increase or remain the same?

Mr. BOWSHER. No. We devote about 27 percent of our workload to defense issues, and that is up from a couple of years ago and we expect it to go higher. Just how much higher, we are not sure at this time.

Chairman TOWER. Mr. Bowsher, we have noted change in the relationship between DOD and GAO. It appears that DOD and GAO are much more cooperative than has been the case in the past. How would you characterize the relationship you now have with the Department?

Mr. BOWSHER. Yes. I specifically asked my people earlier this week. The general feeling is we have the best working relationship with DOD right now than we have ever had. So we feel very good about it. I am not saying we do not have an occasional problem now and then, but we have very good cooperation and very good working relationships.

Chairman TOWER. I do not know whether you can answer this question. Do you think that DOD has less or more waste relative to other departments? What kind of track record do they have?

Mr. BOWSHER. I think that is a difficult question to answer, Mr. Chairman. I think it would be hard for us to do that.

Chairman TOWER. All right. Thank you very much.

Senator Humphrey?

GAO RECOMMENDATIONS ON COST GROWTH

Senator HUMPHREY. Thank you, Mr. Chairman.

Incidentally, I think this is an excellent idea, having this approach from GAO. I hope that we can find ways to take greater advantage of their excellent services. Certainly, it is incumbent upon this committee to provide the necessary documentation for GAO's actions. That may become more critical as the years go by. So I commend you, Mr. Chairman, for having these witnesses.

Mr. Bowsher, on page 3 of your statement you say that GAO has made a number of recommendations over the years toward the development of better control over the cost growth problem and you list some of the points that DOD should provide.

Are these recommendations that were made in the past, or are these new recommendations?

Mr. BOWSHER. No; there are recommendations that, by and large, have been made in the past.

Senator HUMPHREY. To what degree have they been taken up by the Department of Defense?

Mr. BOWSHER. They have been taken up from time to time with improvements, but we have not seen a consistent and what I call the perseverance that you need in order to have them implemented over a long period of time. In fact, some were actually in the SAR reporting system and then taken out.

COST ESTIMATING/COST REPORTING

So I think we have not seen in the last 10 years at any time, where you have what we consider to be the essentials to good cost estimating and good cost reporting on weapons systems, not that there has not been improvements from time to time.

Senator HUMPHREY. Will you repeat that statement again?

Mr. BOWSHER. There was not what I would say was an overall effective program to improve cost estimating and cost reporting persistently throughout the system for a period of years so that you could then track things the way you should have been able to.

Senator HUMPHREY. That is an interesting statement. What accounts for that resistance to implementing recommendations of this kind?

Mr. BOWSHER. I think that sometimes it is the services because they feel they do not have the manpower. And I remember I served on an advisory committee back in the early 1960's. What we thought at the time was that they were just not putting in enough manpower at the program office level. And then we had all kinds of review functions. We were constantly asking the same people about the estimates who had made up the original estimates. It was just out of balance. The Defense Department at times has made a drive to improve things. They put the CAIG group back in some years ago, and that has helped a lot.

It has been a variety of reasons, but it has been a mixture of results.

CONGRESSIONAL INTEREST IN COST

Senator HUMPHREY. Has there been any tendency of Congress to insist on these kinds of things? Obviously, we are putting some of the blame on the Department of Defense. But I think Congress has to share the blame as well. They are not insisting on recommendations of this kind being implemented.

Mr. SHELEY. There has been periodic interest. This does not represent all the recommendations we have made. There is a number which have been adopted, that have been incorporated into the management processes of DOD.

In 1979, for example, we did two specific studies for various congressional committees, one in the Senate and one in the House, dealing with the SAR reporting system in order to reinforce some of these recommendations. A number of them were adopted at that time.

But these are the ones we feel still need to be adopted and have been outstanding for a long time.

Mr. BOWSHER. I might point out, Senator, that one of the letters the chairman sent us asking us to look into this SAR reporting system will allow us to update some of these issues and that certainly needs congressional interest.

Senator HUMPHREY. This matter of cost overruns and other problems of procurement have been with the Department of Defense, I suppose, since it was first created. Yet, incredibly, here we are decades later with the same problems and no consistency in overcoming them. Apparently, sporadic efforts have been made, but we really have not made an awful lot of progress on these great problems.

INDEPENDENT REVIEW OF COST ESTIMATES

What process of independent review exists today in cost estimates?

Mr. BOWSHER. It has decayed at the office of Secretary of Defense level. There is a mixture at the service secretary and the chief of military service level.

Senator HUMPHREY. Is that truly independent? Is that in-house?

Mr. BOWSHER. I think it can be a major help. In other words, I remember some years back the Navy had a system going in the office of the Chief of Naval Operations which the Secretary of the Navy pushed. I thought it brought some realism to some of the Navy estimates for a period of time.

If the military services at the program office level and the top people in the military services want realistic cost estimates, I think that it is a big help. But, it should not be just at the office of the Secretary of Defense level.

Senator HUMPHREY. I wonder if that is not the problem. People at the lower echelons tend to form their estimates and their figures to the perceived policy wishes of the upper echelon. I wonder if we are ever going to get any kind of independent review with that situation.

What we need is a truly separate committee—and I am not an expert on this—but what we need is a truly independent committee, an outside agency such as yours, looking at it. What do you think of an idea like that?

Mr. BOWSHER. We have not done one. I just talked to the gentleman, Mr. Walter Sheley here. We certainly can do some and give you our judgment.

Mr. SHELEY. I might add, Senator, that we were somewhat encouraged by the composition of defense resources. We hope that can be the mechanism to bring that high-level official judgment into play. We do not know how it worked this time. The budget has just come out on the street, and we will, of course, try to track it back through there as we start looking at some of these programs.

Senator HUMPHREY. It is a matter of underestimating. This is one that has plagued many administrations and both parties.

REALISM IN INFLATION ESTIMATES

Mr. Bowsher, you made a statement that this is a matter of concern to you that you saw some signs that a more realistic approach is being taken. I think I detect in that phraseology some reservations about whether the administration has been as realistic as it should be in the 1983 budget forecast. Can you give us some opinion on that?

Mr. BOWSHER. I would like Walt to speak to that.

Mr. SHELEY. We just learned yesterday afternoon, Senator, that OMB had agreed with DOD, using some higher than OMB-prescribed rates in certain accounts. We are still checking it out. It looks like it would range 2 to 2.5 percent above the first rates that were proposed for those particular accounts.

Now, as to how realistic they may be, we will have to take a look and see, balanced against what the inflation rate has been, particularly in the defense sector. It is crucial to keep in mind that a number of studies have shown that the defense sector inflation rates have been substantially above the general economy rate.

Senator HUMPHREY. Yes.

Mr. BOWSHER. One of our problems, Senator, is that we just have not had the information long enough to review it.

Senator HUMPHREY. I understand. Secretary Carlucci addressed this point yesterday in response to a question I raised. It is obvious to me, though, that we still are not fully realistic about inflation.

Mr. BOWSHER. I think that is probably right, Senator.

Chairman TOWER. Senator Nunn?

Senator NUNN. Mr. Chairman, I just came in. I think it would be fairer if I let Senator Levin speak first.

INDEPENDENT INSPECTORS GENERAL

Senator LEVIN. Thank you, Senator Nunn, Mr. Chairman.

Mr. Bowsher, for many years DOD resisted the attempts on the part of many in Congress to establish an independent inspector general in DOD.

Last year DOD adopted a new organization in which an assistant secretary of defense was given some functions which DOD claim constitute those carried out by inspectors general. Does GAO agree with DOD or does it still support establishment of an independent inspector general at DOD?

Mr. BOWSHER. No; we do support an independent inspector general. We think there has been progress made by what they did, but we would support an independent IG.

PROPOSED AMENDMENT ON USING COMPETITION

Senator LEVIN. Last year I introduced an amendment along with Senator Cohen which would have increased competition in DOD procurement according to our statistics. There were 60 percent of DOD's contracts that were sole source, noncompetitive contracts. According to GAO's reports, there is a tremendous savings to be accomplished by competition, depending on what you calculate—30 percent typically by that competition.

Last year your predecessor Comptroller General Elmer Staats, wrote a letter to me on October 20 in which he agreed with the objectives of the amendment which I introduced along with Senator Cohen, restricting the use of DOD's sole source noncompetitive contracts, He stated that in his opinion the section would increase opportunity for competition. However, the letter went on to say that because of the number of exemptions which were included in my amendment, the GAO has some unease about the amendment. GAO thought it was too broad in terms of its exemptions. It went too far to meet DOD's request for exemptions. Your predecessor felt, in his words, the amendment "has the possibility to be misinterpreted" as increasing the number of exemptions now existing in the now standing law.

Now, we are in the following situation. Last year the Defense Department fought this amendment. They fought it hard in the Senate. We agreed to increase the number of exemptions to the more restrictive rules in the amendment, and finally DOD agreed to acquiesce on this side of the Congress. The Senate adopted it and then we went to conference. We found the House was opposing it, quoting a DOD letter saying the Department still opposed it.

DOD came here, we amended our proposal to meet it objections, and we found ourselves running into them in the conference. Now, by amending it here, we increased objections on the part of GAO. They thought we went too far to meet the Pentagon objections, so we are kind of caught in a bind. Our intention is to increase competition, but we don't want to create undue paperwork which won't be productive on the part of the Pentagon. Are you familiar with the history of this? Are you familiar with the details?

Mr. BOWSHER. No, I am not, Senator, but I will be happy to look at it again and familiarize myself.

Senator LEVIN. Now we have introduced this amendment as a freestanding bill. A similar bill has been introduced in the House. We will ask you, then, to take a look at Senate bill 1901 and to give us your advice on these issues so we can try to get this improvement in competition into law.

Mr. BOWSHER. We will be happy to do that.

UNDERFUNDING DEFENSE

Senator LEVIN. The next question relates to an issue that Senator Humphrey touched on: that is, the DOD underfunding issue. There has been much made of the question of whether the 5-year defense program is underfunded by $750 billion. Senator Nunn touched on the subject also yesterday, and I believe others have as well. There are a number of articles in the press concerning this.

Have you seen the materials upon which those articles were based? If not, do you believe that you have a right to access to those materials, and if so, will you seek access to those materials and give us your opinion as to whether or not the 5-year defense program between fiscal year 1983–fiscal year 1987, or fiscal year 1984–fiscal year 1988 is indeed underfunded?

Mr. BOWSHER. Yes, historically, the GAO has not looked at whether the defense budget or any other budget was underfunded. I would like to do that. I have instructed our staff to look at the proposed underfunding issue of the out years, and to study the problem of recent parts. We will have to report back to you, on whether we can do it, but it is of interest to me and to the GAO at this time.

Senator LEVIN. So we will hear from you on the underfunding issue?

Mr. BOWSHER. Yes.

Senator LEVIN. If the funding is not up to it, you will let us know as well?

Mr. BOWSHER. Yes.

COST SAVINGS

Senator LEVIN. Let me address the issue of DOD cost savings. The Pentagon has claimed $51 billion in cost savings through management initiatives out to the year 1987; $24 billion of that comes from simply capping Federal civilian pay. This is a practice that extends back several years. In addition, this presently proposed pay capping for the Pentagon applies to all Federal agencies, not just the DOD.

Do you believe this is a legitimate claim by DOD that this pay cap represents a DOD management initiative?

Mr. BOWSHER. No, I don't, Senator. I think that maybe the administration can claim that, but I don't really think this is a result of a DOD initiative.

CAIG B-1 BOMBER COST ESTIMATE

Senator LEVIN. The last question relates to the cost analysis improvement group in the Pentagon. They made a program estimate for the B-1 bomber, which indicated, to the best of our information, that it would be much more expensive than the $20.5 billion in fiscal year 1981 dollars that the DOD and the Air Force claimed. We tried to obtain a copy of the CAIG analysis and we were refused.

Do you know whether or not the CAIG estimate was available to GAO when it made its estimate?

Mr. BOWSHER. I checked on that, and we do get CAIG estimates and back up material, so we traditionally do not run into a problem working with them on that material.

Senator LEVIN. Was the CAIG estimate available?

Mr. BOWSHER. Walt tells me we were reviewing program office estimates at that time. We were trying to get it.

Senator LEVIN. I couldn't hear you. What was that?

Mr. BOWSHER. We were trying to do that. Walt could give you the details.

Mr. SHELEY. We were working on a program and it came to our attention that this estimate was available at the program office. We felt it was essential to share that information with the Congress and provide it. We are continuing to look at that program at this point in time. We will, if we haven't already, take a look at the CAIG estimate.

Senator LEVIN. Would you give us your current estimate on the cost of the B-1 bomber in fiscal year 1981 dollars so we are talking about the same dollars after you look at the CAIG estimate?

Mr. SHELEY. As soon as we have information available, we will be happy to supply it.

Senator LEVIN. Also, please look at the new B-1B budget for fiscal year 1983 to see whether or not it has any changes in that regard from the 1982 budget——

Mr. SHELEY. We will be doing that, sir.

Senator LEVIN [continuing]. Then we can look back.

Mr. SHELEY. Yes, it will be some time, but we will do that.

Senator LEVIN. When do you believe that will be available to us?

Mr. SHELEY. It will probably be several months down the road.

CONTRACT AWARD APPEAL

Senator LEVIN. Are you familiar with another amendment on which we are working, which would increase the effectiveness of a bid protest to the GAO after an appeal to an agency on a contract award question?

Mr. BOWSHER. The bid programs?

Senator LEVIN. Yes.

Mr. BOWSHER. I am not aware of the amendment that you are talking about, Senator.

Senator LEVIN. We will submit that to you, then, and see whether or not you can be supportive of that amendment as well. One of the problems we find, we found this not necessarily in DOD but in other agencies as well, is that when there is a bid protest to GAO, frequently GAO finds—I think it is something like 18 percent of the protests to an agency or department which are not resolved at that level and which then come to GAO, are resolved in favor of the petitioner.

Nevertheless, the decision at GAO sometimes comes after an agency has simply gone ahead and issued the contract anyway. GAO finds belatedly that the protest was a proper one. It is not GAO's fault because it takes GAO that much time to review a bid protest. I am wondering whether or not you would give us a review of the amendment, which will put greater teeth into the bid protest procedure at GAO; it will say, in essence, unless there is some urgency to the contract, unless the Government is going to be losing money for a needed service or a needed part, that there would be a little greater opportunity for GAO to make that review so that the agencies could have the benefit of the GAO's review.

Mr. BOWSHER. We will be happy to do that.

ACCELERATE B-1 REVIEW

Senator LEVIN. And finally, and I think my time is up, would you accelerate your B-1 reviews since I understand that we are going to be finishing this budget in early April?

Mr. BOWSHER. We will make every effort to do that.

Senator LEVIN. Thank you, Mr. Chairman.

Chairman TOWER. At this point I would like to place into the record the letters that I have written to Mr. Bowsher requesting the assistance of his office in evaluating a number of efforts, some of which cover some of the very things that you requested, Senator Levin. So we will have those in the record.

[The letters follow:]

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States,
Washington, D.C.

DEAR MR. BOWSHER: I am writing to request the assistance of your office in evaluating the efforts of the Department of Defense to achieve maximum economies and efficiencies in the procurement area. Specifically, the Department plans to request approval for a number of multi-year procurements in the fiscal year 1983 budget.

The Committee is concerned with the review of several defense programs proposed for multi-year procurement in fiscal year 1983. As a prerequisite to approval, the Committee will want to be assured that such multi-year procurement proposals satisfy the criteria set forth in the reports accompanying the fiscal year 1982 DOD Authorization Act as well as the DOD Appropriations Act and that they provide the level of savings, economy, and efficiency which DOD has projected.

It would be helpful to this Committee and to the Congress if the General Accounting Office would verify both that the Department of Defense, in selecting these programs, has complied with such criteria and that the projected economies are achievable. It would also be helpful to determine if the Department has in existence a satisfactory system for identifying the best candidates for multi-year procurements.

The Committee will need a detailed briefing in mid-March on the reasonableness of each of the fiscal year 1983 proposals for multi-year procurements prior to reporting out the DOD Authorization Bill, which we plan to do by April 1, 1982. This briefing may be followed with a subsequently issued report.

Sincerely,

JOHN TOWER.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States,
Washington, D.C.

DEAR MR. BOWSHER: I am writing to request the assistance of your office in evaluating the efforts of the Department of Defense to achieve maximum economies and efficiencies in its operations.

This Committee is quite concerned that the Department of Defense budget be as free of waste and inefficiencies as is possible. In responding to our concern in this matter, the Deputy Secretary of Defense has informed us that DOD has reduced proposed defense outlays for fiscal year 1983 by more than $5 billion and obligational authority for fiscal years 1982 through 1987 by $48.2 billion, based on cost avoidance, economies, and efficiencies.

I believe it would be helpful to this Committee and to the Congress if the General Accounting Office would verify the reasonableness and accuracy of these estimated economies and determine if there is an adequate system in place to track the actual savings as they occur.

The Committee will need a detailed briefing on the reasonableness of the fiscal year 1983 projected savings well before reporting out the authorization bill, which we plan to do by April 1, 1982. After reviewing the briefing, we can then proceed to consider follow-up measures.

Sincerely,

JOHN TOWER.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States,
Washington, D.C.

DEAR MR. BOWSHER: As you may know, the Department of Defense seeks in its Fiscal Year 1983 authorization request to fully fund two nuclear aircraft carriers, CVN-72 and CVN-73. This funding approach is considerably different from the manner in which DOD has historically procured aircraft carriers. Their original plan for these two ships was to seek long-lead funding for CVN-72 in FY-83 with the balance to be funded in FY-84 and long-lead funding for CVN-73 in FY-85 with the balance to be funded in FY-86, essentially procuring these ships one at a time. DOD now believes that it can achieve cost savings or cost avoidance of $753 million if Congress agrees to fund both nuclear aircraft carriers in FY-83. In addition, the Navy asserts that this funding approach will result in a delivery date for each such carrier which will be two years earlier than would be possible if the carriers were procured as they have been in the past.

I applaud the genuine efforts of Secretary Weinberger to achieve cost savings or avoidance at every opportunity. However, the Committee must be persuaded that such cost savings or cost avoidance and accelerated delivery schedule, when compared to the original plan envisaged for FY-83, are, in fact, achievable. To assist the Committee in making this assessment, it is requested that the General Accounting Office undertake, as a matter of priority, a review to determine whether fully funding two CVN's in FY-83 will indeed result in a cost avoidance of $753 million and the accelerated delivery schedule projected by DOD.

In anticipation of using this information in Committee hearings as well as throughout this session, the results of your review must be reported in writing to the Committee not later than April 1, 1982. In addition, I would like for you to make your staff available to meet with the staff of the Committee on Armed Services prior to February 15, 1982, to discuss this matter in as much detail as possible.

Sincerely,

JOHN TOWER.

Senator NUNN. Mr. Chairman, I have read the letters. I think they are excellent. I would congratulate the chairman for taking this issue. I think these will be a very great help.

Chairman TOWER. I thank the Senator.

Senator LEVIN. I also think they will be most helpful.

Chairman TOWER. Senator Warner?

Senator WARNER. Mr. Chairman, I will defer to my colleague, Mr. Quayle.

Chairman TOWER. Senator Quayle?

Senator QUAYLE. Thank you, Senator Warner and Mr. Chairman. I appreciate your holding these hearings. I think they will be very, very useful.

DEFENSE BUDGET FLEXIBILITY

Mr. Bowsher, yesterday we heard testimony from Secretary Carlucci, reflecting the position of the Department of Defense, that the budget as submitted, has no room for flexibility, no room for any kind of reduction. Do you agree with that?

Mr. BOWSHER. Well, I think we have to do our review first, and I think we would come back and find in our budget review, probably with some suggestions, there may be some areas that you might consider in the Congress. But until we have done our review, I really cannot say.

Senator QUAYLE. When will that review be completed?

Mr. GROSSHANS. We are trying to get a draft report to DOD in the early April timeframe.

Senator QUAYLE. So it would be essentially available if we start marking up the Budget Committee in the last part of March?

Mr. GROSSHANS. We can certainly brief you on the key issues that are involved. As I pointed out earlier, we had two sessions already. We will be more than willing to go into the type of detail they would need in order to help in reporting out the bill.

Mr. BOWSHER. We will definitely have some readings for you by then.

ABSORBING DEFENSE FUNDING INCREASES

Senator QUAYLE. All right, thank you.

As you know, the proposed defense increases over the next 5 years or 6 years basically doubles previous levels. Do you believe from a management point of view that the infrastructure that is in place in the Pentagon can efficiently absorb those increases?

Mr. BOWSHER. We are not sure, and that is one of our concerns. That is one of the reasons we established this task force, to look at the budget this year. Again, I don't know what the answers are, but we have the same concerns, I think, that you are expressing.

Senator QUAYLE. But you do have a general concern about being able to absorb that from a management point of view, particularly as Senator Levin alluded to in his report on the $750 billion underfunding request. It could possibly be very difficult.

Mr. BOWSHER. Yes, we also have a concern about whether it will impact the stability of the programs.

Mr. GROSSHANS. Senator Quayle, could I answer that? There are certain areas where we have noticed where there are difficulties in

placing some of the moneys. For example, on the base maintenance activities, the increases have been quite significant. The staffing of the engineering function at those installations, not only has it remained stable but it has actually gone down. So in some of our discussions they pointed out some real difficulty in trying to absorb this initial increased money and do it justice, not only in placing the contracts, but in supervising the construction and renovations.

Senator QUAYLE. I will look forward to your report. I think there will be very much of a problem.

Mr. SHELEY. May I add to that, Senator? The weapons side is generally not as difficult to absorb when you are buying 150 airplanes versus 120. You don't have that kind of magnum jump in management. And one thing we have noticed, that leadtimes, for example, seem to be going down. It is getting more favorable to industry at this point in time.

SHUTTING DOWN PROCUREMENT LINES

Senator QUAYLE. Yesterday I asked Mr. Carlucci a question concerning the P-3C. What originally had been a request to phase out the aircraft is now, I believe, a request to purchase six. I believe his response was basically that to shut down the procurement line for 5 or 6 years would be more costly. Perhaps there would be some anticipated export sales. From a management point of view, they would go ahead and keep this program online. Is that a correct assessment? Is it really going to cost us more, in effect, to shut down and start up the line?

Mr. BOWSHER. I am not sure it would cost us more, Senator, but those are the key issues that you have to think through, and I suspect that they must have done some studying on that one. I know we could look at that if you like.

Senator QUAYLE. You have not looked at this?

Mr. BOWSHER. No.

Senator QUAYLE. I think also that on the A-10's as well, there was a recommendation to go ahead and shut down the line. Now they are going to reactivate it along those same lines. I would be curious from a management and dollar point of view if in fact this is a good decision.

Mr. BOWSHER. We will be happy to try to look at those, too.

[The information follows:]

We found no study relative to determining the costs of a production shut down and a reopening of the production line versus the costs associated with maintaining a limited rate production for the A-10 or P-3 aircraft. However, apparently the Assistant Secretary (Comptroller) of the Office of the Secretary of Defense, made an assessment of production shut down relative to the P-3 aircraft, which we understand revealed a considerably high cost to close and reopen the production line as opposed to maintaining a minimum level of production.

In view of the congressional interest in these aircraft, it may be appropriate that an indepth study be made for each of the aircraft.

STEALTH ESTIMATES

Senator QUAYLE. Thank you very much.

Do you have any cost estimates on Stealth?

Mr. SHELEY. We are aware of the cost estimates, Senator, but I don't think we should discuss them in open hearing.

Senator QUAYLE. But you do have some good figures on them?

Mr. SHELEY. Yes, sir. I am periodically briefed by the Program Office on the controls that they have, where they are progressing, how much money is going into it.

Senator QUAYLE. I don't want to get into anything classified, but I would just like to ask a general question. From the information that you have, do you believe that you can come up with some good, concrete cost estimates? Are we that far along?

Mr. SHELEY. I would rather not answer that, Senator.

SOVIET DEFENSE SPENDING

Senator QUAYLE. Let me ask another question. You may not be able to answer this either. There were a number of reports on how much the Soviet Union spends on defense and national security. Do you have access to any of those numbers and have you reviewed them, where their allocations are?

Is this an area that you get into? I don't even know.

Mr. SHELEY. Yes, we get into that area. I guess I would have to say we are dependent upon the intelligence community for many of those estimates, but we do have access.

Senator QUAYLE. Is there any unclassified report available to us to show the amount of moneys that the Soviet Union, in fact, is spending and how they are spending it?

Mr. SHELEY. I have seen some very general information that was unclassified, but I don't have any in my possession. It goes back several years.

Chairman TOWER. Actually you are relying entirely on the intelligence community, aren't you?

Mr. SHELEY. Yes.

Chairman TOWER. You don't have any intelligence gathering capabilities at all. I think you would have to get that from the intelligence community.

Senator QUAYLE. But I am wondering if the GAO has been able to review what they have gotten from the intelligence community from an accounting point of view to assess the Soviet Union defense vis-a-vis ours. I don't think it is classified——

Mr. BOWSHER. I think what you are leading to is whether we have ever done any independent assessment of those things. Some of our people have had access to them from time to time, but the GAO has never done any independent check on whether they are right or wrong or anything like that.

Senator QUAYLE. Do you have any desire to?

Mr. SHELEY. We don't have the capability.

Senator QUAYLE. Fair enough.

AH–64 COST

The cost overruns are really nondefense issues, too. Defense shouldn't be singled out as having cost overruns. We have all sorts of cost overruns in government, but the last one, on Senator Goldwater's subcommittee on the AH–64 program, are you familiar with the facts of that situation?

Mr. SHELEY. Yes, we have been following that very regularly. We have some letters to the Secretary of Defense expressing our con-

cerns in December. We have another report in process for distribution in several weeks dealing with the AH-64 program.

Senator QUAYLE. Do you know how much of a profit was originally intended in 1976 for that contract?

Mr. SHELEY. I would have to supply that for the record. I don't have it right at hand.

Senator QUAYLE. Do you know what the profit is now, what the cost overruns have been?

Mr. SHELEY. I think we have that information, but if not, we could get it.

Senator QUAYLE. I would appreciate that. I would assume the profit would increase.

Mr. SHELEY. It would go up some, I am sure. Some cost sharing in there would reduce parts of it, but there would be other additional profit added in as a result of change orders and such as that. Let me take a look and we will provide it for the record, sir.

[The information follows:]

PROFITS AND COST OVERRUNS

In December 1976, the Army awarded the YAH-64 full-scale engineering development contract to Hughes Helicopters. The contract was a cost plus incentive fee, with target cost set at $293,931,051, and an 8 percent target fee of $23,514,484. Cost above target were to be shared on a 70 percent (Government) 30 percent (Hughes) basis until Hughes' fee dropped to zero. At that point, all costs would be assumed by the Army. Since 1976, 146 modifications have been made to the contract, mainly due to mutually agreed on engineering changes. The contract as of February 16, 1982, which reflects the iastest modification, has a target cost of $395,851,541, with an 8 percent target fee of $29,717,046. Actual costs through January 26, 1982, based on vouchers submitted by Hughes total $542,167,593, which has reduced Hughes' fee to zero on the contract.

In February 1981 the Army awarded Hughes a long-lead time item production contract for $25.1 million. This is the only production contract negotiated to date.

In November 1981 the Army, based on its recent studies, estimated the total procurement of 536 helicopters to cost $6.518 billion (escalated dollars), $1.697 billion higher than the September 1981 Selected Acquisition Report estimate of $4.821 billion. As such, the large procurement cost increase is the result of the Army's reassessment of program costs rather than a cost overrun on the production contract.

The Army, in approving the AH-64 for production on November 18, 1981, reduced the total buy to 446 aircraft and accelerated its production schedule, which brought total estimated procurement costs down to $5.864 billion. At this point, the Army has not signed the first year production contract for 11 aircraft with Hughes.

Hughes submitted its contract proposal for the first 11 aircraft in December 1981. The proposal was higher than the Army expected, and contract negotiations are still ongoing. The contract type is a fixed price incentive fee, for which the Army had been projecting a 10 percent profit rate. Hughes' proposal included a 15 percent profit rate. This difference is being worked out in negotiations.

Senator QUAYLE. And if you find that the cost overruns led to more profits, in fact, one could say with justification that cost overruns are an incentive to increase one's profit. That would be proper.

Mr. SHELEY. Not always.

Mr. BOWSHER. Not always, true, Senator. It depends on each individual contract.

Senator QUAYLE. I wish in your analysis of this particular case you would view it from that particular point. If in fact there was a greater realization of profit by having these costs overruns, in this case in particular and perhaps this is more of a precedent than we

think, and if so, if you follow that to the conclusion, I would be as alarmed and chagrined as everybody else.

COMPETITION IN DEFENSE CONTRACTS

I guess one final general question. Do you believe that overall we have enough competition in defense contracts? Do you think we could be doing a better job, and if so, should it be a responsibility of the Congress to come forth with some other statutory legislation to provide more competition?

Mr. SHELEY. First off, I think you have to define a little more narrowly than when you say defense contracts. There are some segments of the procurement process that lend themselves extremely well to competition; that is, buying replacement, spare parts, things such as that. Once you get into large ticket items such as airplanes, tanks, ships and so forth, first, you have a limited number of suppliers.

No. 2, the cost of competition or competing production of a limited number of systems would probably be counterproductive. You have to get the competiton up front at the time you are making the basic selection as to which particular design you are going to go with. Beyond that point, it could very well be counterproductive.

For example, you are buying *x* number of airplanes. To tool up two contracts, the cost would be horrendous. It would more than offset any possible cost you would obtain by competiton.

But there is another factor. Once you are locked in to a particular airplane or tank, there is a way to pressure that and to get competition at the subcontractor and vendor level, and that would improve costs, too. That is a place that pressure can be applied and which you would like to continue to apply it.

Mr. BOWSHER. I think the only additional comment, I would say, is I think there has been an historic trend here in recent years where at the subcontract level there may be a shrinking rather than an expanding, and whether that will reverse itself at this time in the program, we will just have to see.

Senator QUAYLE. Thank you, Mr. Chairman.

Thank you, Senator Warner, for yielding to me.

Chairman TOWER. Senator Nunn was here first.

Senator Byrd?

Senator BYRD. I will yield.

Senator NUNN. Thank you, Mr. Chairman. I will not take much time.

Mr. Bowsher, we are glad to have you here this morning with your associates. We put great value on the GAO reports, and we have historically put tremendous emphasis on the growing involvement of defense expenditure. I again compliment the Chairman in making specific requests so that you can keep us abreast of certain developments. As he indicated in his letter, and I also read your statement, the areas on which you are involved will be of great assistance to this committee.

Mr. BOWSHER. Thank you, Senator, and we look forward to being of assistance to this committee.

AVAILABILITY OF CONTRACTOR MANPOWER

Senator NUNN. Just a couple of questions. A recent article in Business Week is entitled "Is Industry Ready for the Defense Buildup?" The article notes, and I quote, "Despite the lift the spending increase will give to the industry, there are problems. Manpower in highly skilled areas could cause trouble. Also, there is a real inflationary threat if the defense buildup severely strains production capacity, particularly at the subcontract level where there are many supplier dropouts in recent years."

Two questions. Has defense manpower—I mean in broader terms, not just in military but in the contracting end, the procurement end of manpower, the skilled jobs that would be demanded and the defense buildup that is under way—has that been the subject of a GAO review?

Mr. BOWSHER. No; it has not, Senator.

Mr. GROSSHANS. We have looked at this in the past, Senator, from the standpoint of depot maintenance capability, in-house capability, and the impact of the aging work force. We have not done a detailed review from a broader standpoint across the industry. We are well aware of the problems that have been enumerated. For example, machinists, 250,000 shortage within the next 5 years.

Senator NUNN. Where do you get that statistic from now?

Mr. GROSSHANS. Basically industry has come up with those type of figures. They have done some of their own studies. Some of the industry associations basically have come up with this type of statistic.

Senator NUNN. Without requesting that you undertake this kind of a review, because I know you have got a platter full now, but I think it is very important, could you supply for the record the information, and I am not asking you to do the study, but information that has come to your attention, like the 250,000 job gap you have just indicated?

SKILL NEEDS

Could you supply for the record from whatever source you have, without going into extensive research yourself, the apparent skill needs in our overall economy today, particularly as they relate to defense but not exclusively there? I think it is almost impossible to break it out and say we need so many jobs for defense. The question is what skills do we need in our overall economy that are not there?

[The information follows:]

The following studies have come to our attention regarding shortages of skills in the workforce.

SURVEY REPORT OF THE NATIONAL TOOLING AND MACHINING ASSOCIATION, OCTOBER 1981

In September 1981, the National Tooling and Machining Association polled over 3,000 contract or job shop tooling and machining companies on manpower needs. The results revealed that there was a substantial unsatisfied demand for fully trained journeyman-level machinists, toolmakers, diemakers and moldmakers, even though the industry is engaged in substantial training activities.

In its report the Association said that the 3,058 responding firms were typical of about 14,000 companies in the entire job shop industry. If the trend evidenced by the survey responses holds true for the entire 14,000 firms, current demand for addi-

tional journeymen would be nearly 32,000 workers. The tasks performed by these workers are essential to the mass production of items such as consumer goods or military ammunition and to the batch production techniques utilized in high-technology applications such as aircraft parts or research projects.

SURVEY REPORT OF THE NATIONAL SCREW MACHINE PRODUCTS ASSOCIATION, JULY 1981

In March 1981, the National Screw Machine Products Association surveyed its members to determine skilled manpower levels and to project future manpower needs. It found an abundance of training underway but also loss of skilled workers. Over five years, the Association calculates it will need to recruit 24,000 new skilled employees working in automatic screw machine departments versus 14,993 currently on the job. The report concluded there is a shortage of skilled workers. However, this shortage may be only symptomatic of a deeper problem—the inability of employers to retain employees, especially younger operators and trainees.

REPORT OF THE TASK FORCE ON THE SKILLED TRADES SHORTAGE, MARCH 1981

The Task Force on the Skilled Trades Shortage is an industry-wide coalition of 12 national and local trade associations and societies. The task force spent 14 months identifying and substantiating data on the critical shortage of skilled workers in mold making, tool making, precision machining and other specialized metalworking positions. It cited available figures which showed there was a serious imbalance between job openings and qualified prospects available to fill those positions. For example:

Department of Labor estimated that there will be an average of 31,000 job openings a year for tool and die makers and machinists between now and 1990. Yet, only 5,000 completed registered training programs during 1978. Also, only 47 percent of the people starting apprenticeships in these two occupations complete the full 4-year program.

According to the President of a leading producer of mold bases, the demand for new mold makers alone will reach 40,000 by 1985.

There is a backlogged demand for 60,000 skilled metal working journeymen and an anticipated need for 240,000 journeymen by 1985.

The study concluded that the skilled trades shortages, if left unchecked, will reach crisis proportions within the next 2 to 4 years.

DEFENSE SCIENCE BOARD 1980 SUMMER STUDY ON INDUSTRIAL RESPONSIVENESS, JANUARY 1981

The Defense Science Board concluded that there are serious shortages of skilled or trainable people in the defense business resulting in intense competition. The study stated the decline in engineering and scientific graduates is well documented, but perhaps less visible is the current increasing shortage of skilled production workers, electronics technicians, tool and die makers, etc. The study stated that:

"A National Tooling and Machinery Association survey concluded that the industry would have a shortage of 240,000 persons by 1985 and that about 10,000 would be needed in the defense industry to replace attrition and accommodate some very modest growth.

"Current training and apprenticeships programs are not adequate to meet the demand. For example, the Department of Labor estimated that the average annual opening for machinists during the period 1978–1990 would be 22,000. This contrasts with the apprentice program output of about 2,800 a year in 1976–78.

"The orientation of the Comprehensive Employment and Training Act program has not been developing a base of skilled workers and from the viewpoint of the defense industry has been of little assistance.

"Data was not available on other skilled worker categories but vendor and subcontractor surveys indicated shortages in the categories mentioned above plus test technicians, optical personnel, and skilled assemblers."

REPORT OF THE DEFENSE INDUSTRIAL BASE PANEL OF THE HOUSE COMMITTEE ON ARMED SERVICES, "THE AILING DEFENSE INDUSTRIAL BASE: UNREADY FOR CRISIS", DECEMBER 1980

The panel found that skilled manpower shortages are prevalent throughout industry. It referred to the Defense Science Board Task Force which concluded that a major contributor to the increasing lead times and costs currently afflicting the defense community is a continuing shortage of skilled labor and specifically, the nation would be short 250,000 machinists in the next five years.

The panel concluded that the current manpower shortages have created a "sellers market" for engineers, computer professionals, and other skilled workers and competition for these scarce human resources is intense. It also concluded it is clear that in the absence of adequate supplies of engineers, computer professionals, machinists, and other skilled workers, the defense industrial base will continue to exhibit symptoms of failing health.

TESTIMONY OF GENERAL ALTON D. SLAY, COMMANDER OF THE AIR FORCE SYSTEMS COMMAND BEFORE THE INDUSTRIAL BASE PANEL OF THE HOUSE ARMED SERVICES COMMITTEE, NOVEMBER 1980

During his testimony, General Slay cited several industry studies which identified skill shortages and stated that the Air Force faces a worse problem than does industry because of widely divergent pay scales. As an example, he said the Air Force is short over 1,100 qualified engineers, all in critical fields and that in another year the shortage would increase to nearly 1,400. Complicating the picture was the fact that the experience level for the Air Force's systems and development engineers had decreased by nearly 20 percent during the past 2-year period.

General Slay cited a 1980 survey conducted by the Forging Industry Association which showed that current shortages run as high as 20 percent of need with projections to 1990 showing that shortages run as high as 42 percent of need as shown in the following table.

[In percent]

	1980 shortage	Projected 1985 shortage	Projected 1990 shortages
Impress diemaker	18	27	42
Die designer	20	24	34
Trim maker	13	21	33

REPORT OF THE NATIONAL SCIENCE FOUNDATION AND U.S. DEPARTMENT OF EDUCATION ON SCIENCE AND ENGINEERING EDUCATION FOR THE 1980'S AND BEYOND, OCTOBER 1980

In this report, the National Science Foundation and Department of Education concluded that by several indicators, demand for engineers and computer specialists was, in mid-1979, quite tight. Over the longer term, the study estimated that such shortages would ease. Projections of supply and demand for various categories of science and engineering occupations showed more than ample numbers of graduates in most engineering and scientific fields by 1990.

One area identified as an area of possible shortage was computer professionals. However, it also noted that graduates in related fields such as electrical engineering and mathematics could be expected to fill much of the gap. The study identified aeronautical engineers as field which might be slightly short in supply during a major defense build-up. Finally, it projected that worse shortages might develop for engineers if engineering programs are unable to expand to accommodate all the qualified students who desire that training. Some specialists consulted for the study doubted that engineering schools would be able to absorb that many students, and therefore predicted shortages for engineers and computer specialists to become more severe.

RAND CORP. STUDY FOR THE AIR FORCE ON DEFENSE INDUSTRIAL PLANNING FOR A SURGE IN MILITARY DEMAND, R-2360-AF, SEPTEMBER 1978

Firms in the Rand Corporation's sample repeatly emphasized that the most severe problems in meeting surge demands would relate to the hiring of appropriately skilled labor and the timely acquisition of additional equipment, with the hiring of skilled labor receiving the most emphasis from both current and noncurrent defense producers.

REPORT OF THE LOGISTICS MANAGEMENT INSTITUTE ON THE DEFENSE INDUSTRIAL BASE, AUGUST 1977

This Logistics Management Institute study included an analysis of the ability of defense firms to attract "top" engineering graduates. It found that defense firms had little trouble hiring the engineers they needed, but graduates with several options tended to choose other jobs, due primarily to the reputation of defense contractors—especially aerospace firms—for low job security.

Senator NUNN. I read some numbers the other day that had been put forth on this subject by the Department of Labor. That may be the best source, but there may be other sources, and the numbers are staggering when you look at the overall skill needs, and also if you look at the terrific rate of unemployment that we have. There is a huge number of people out of work and yet there is a huge number of jobs that are not filled in the skilled area. Does that give you some concern about the defense procurement buildup as to whether we really are going to have the manpower and the skills to do it without inflating the overall economy?

Mr. BOWSHER. Yes, it does give us concern, because I was at the Pentagon during the buildup and I heard some problems of that buildup, and it subsequently came into our budget. So I do have concerns. That is one of the areas that we want to look at. What we can accumulate and report to you, I am not quite sure, but we will give it a good try.

Senator NUNN. I am asking for existing information. I am not asking for a study. It may be at some point we will need that kind of work, but I am going to ask questions of the Department of Defense to see what they have done in that area. Just information that has come to your attention is what I want.

Mr. BOWSHER. Yes.

CARLUCCI INITIATIVES

Senator NUNN. Mr. Bowsher, Secretary Carlucci has announced 31 initiatives to improve the acquisitioning process, and Labor added the 32d involving competition. Has GAO been following these initiatives?

Mr. BOWSHER. Yes, we have, Senator, and we intend to continue to follow them and periodically report on them.

Senator NUNN. When will the first reports be made? When will you have an evaluation of the initiatives and whether they are underway?

Mr. SHELEY. We would hope that we will be able to report later on in the year, possibly the spring but it may be summertime.

Chairman NUNN. An interim report?

Mr. SHELEY. Yes, an interim report. It has taken us a while to get those and we will see the first results of them, I think, in the 1983 budget presentation. So we will have some inkling after we take a look at how well they begin to crank in the programs on the 1983 and are they living up to the initiatives. The 1982 budget was submitted without those, as you know.

GAO RECOMMENDATIONS FOR DEFENSE SAVINGS

Senator NUNN. This question may have already been asked, but last January your predecessor made a number of suggestions to the

Department of Defense on ways to achieve savings or make the activities more efficient. Have you been able to monitor the question of whether the Defense Department followed your suggestions?

Mr. BOWSHER. We are monitoring those, and again, we are going to issue a report very shortly on that.

Senator NUNN. Sometime in the spring on that?

Mr. BOWSHER. Yes.

Senator NUNN. Thank you very much.

Mr. BOWSHER. Thank you.

Chairman TOWER. Mr. Warner?

COMPTROLLER GENERAL'S EXPERIENCE WITH DOD

Senator WARNER. Mr. Bowsher, I think most everyone in the room has some knowledge of your background. Describe, when you first came to the Department of Defense, the number of secretaries you worked under and the number of people you associated with, particularly in this area of cost overrun.

Mr. BOWSHER. I came to the Pentagon in 1967. I guess I was one of the last ones on that team, and I served under Bob McNamara. Then I was carried over by you and John Chaffe and Mel Laird in the Republican administration. So I served nearly 4 years in both the Republican and the Democratic administrations.

Senator WARNER. That certainly enables you to be a judge of the type of people, regardless of politics or administration, coming to the Department from the private sector to cope with these problems. Would you say on the whole they are extraordinarily well qualified?

Mr. BOWSHER. Well, yes, I think on the balance they have been very good over the years, exceptionally good.

Senator WARNER. Year after year we see a repetition of these cost overruns. We presumably have the most talented people the private sector and, indeed, the career Government can provide, and yet we are not seeing much difference.

This past week Chairman Tower and Senator Goldwater scheduled a hearing on the AH–64. It has a 46-percent overrun in the procurement unit costs of that contract, again presumably the contract being monitored by the best talent America can produce, from both Government and the private sector.

Is there any hope that the situation can be better managed, and if so, why hasn't it been done in the past?

DOD'S PLANNING, PROGRAMING, BUDGETING SYSTEM

Mr. BOWSHER. I think one of the problems has been, when they put the PPBS system in there in the early 1960's, they put in a very good system that had the visibility, let us say, of all the programs and the dollars that went with them. One of my concerns has been, over the years as I have watched it, is that it has a tendency to generate or gyrate the programs by constant reviews, constant program reviews, constant budget reviews.

I think the services over the years have tried to cram too many programs into the system and therefore, they run into cost overruns and more inflation effect. And the inflation factors have been a very key thing. If you do not have an inflation factor in your

planning, in your programing, in your budgeting system that is somewhat realistic over a 10-year period to what actually happens, you have just got to squeeze out certain weapons systems or stretch them out.

And once you start doing that, then you get program instability. Then you get high unit costs being reported. So as I said in my statement, Senator, what we have got to somehow achieve is improved stability of the programs. And that might mean less programs going in.

Some administrations might not want to buy in on some kind of reserve or flexibility in the program without identifying aircraft carriers and destoyers and planes and missiles and so forth. I think we have tried to do so much in a 20-year period, and each time we have had——

Senator WARNER. You mean trying to develop so many different weapon systems?

Mr. BOWSHER. Yes, so many different weapon systems.

Senator WARNER. They are dictated by the threat, not the management. We have a threat posed to the United States, and as such we have to respond in terms of those weapon systems that we think are essential. I do not know that we can begin to grapple with the cost overruns by cutting back the number of systems.

Mr. BOWSHER. I think you are faced with it right now with this program. What has been proposed is a large number of systems and a very high dollar cost, and hopefully in the next 5 or 10 years you will be able to finance them. If it does not—if that does not prove true, then I think you will again have a decade of stretchouts and therefore high unit costs and therefore cost overruns being reported.

Senator WARNER. One last question. Do you feel that defense spending, particularly in the area of procurement, is inflationary?

Mr. BOWSHER. Not being an economist, I hesitate to answer that question.

Senator WARNER. All right.

I have some other questions on the specific programs, Mr. Chairman, that I would like to submit for the record.

Chairman TOWER. Your questions will be submitted for the record.

Senator Byrd?

Senator BYRD. Thank you, Mr. Chairman.

First I would like to commend the chairman for something new in having the GAO come before this committee. I think it is a fine thing to do, Mr. Chairman.

I would like to thank you, gentlemen.

Mr. BOWSHER. Thank you, Senator.

BUDGET OUTLAYS FOR PERSONNEL COSTS

Senator BYRD. Comparing 1983 with 1981, there is a $60 billion increase in outlays for defense. Put another way, almost a 40-percent increase. If I read the figures accurately, and I want to see if I do, less than half of that increase will go for procurement and research and development. Am I correct in that?

Mr. BOWSHER. You are talking about the TOA, right, Senator?

Senator BYRD. Yes.

Mr. BOWSHER. I am afraid we just got this data yesterday. I do not think we have it by TOA.

Senator BYRD. Would you answer for the record. The way I read the figures, less than half would go for weapon systems and procurement, research and development. That leaves the personnel costs. Do you have a figure giving the total personnel and personnel-related costs, being medical, housing, retirement, recruitment, construction, personnel and all of that? What is the figure in the new budget when you add them all for personnel and personnel-related costs?

Mr. BOWSHER. I think we will have to again supply that for the record.

Senator BYRD. I am speaking now about the outlays.

Mr. BOWSHER. The outlays, yes, sir. I think I have some statistics here, but it does not look like it has everything. So I would have to supply that.

Senator BYRD. If you would.

Mr. BOWSHER. We will.

Senator BYRD. I think it would be very helpful to know just the personnel and personnel-related costs as they all tie in together.

Mr. BOWSHER. I agree, Senator.

Senator BYRD. Could you do that for the current fiscal year as well as for the upcoming one?

Mr. BOWSHER. Yes, we could do that.

[The information follows:]

At the time the information was prepared, DOD Justification of Estimates books for fiscal year 1983 were not available to us. When the justification books become available, more specific and accurate information can be prepared. We have been informed that the justification books will be available to the committee after February 16, 1982. At that time, we can provide any further assistance or information you may need in analyzing the growth in personnel and personnel related expenses from fiscal year 1981 to 1983.

Tables 1, 2, and 3 list the TOA and outlay for personnel and personnel related appropriations. Each table also includes the percent of the total DOD budget represented by each appropriation.

Table 4 compares the fiscal year 1981 and 1983 TOA by appropriation and includes the percent of total change between 1981 and 1983.

Similarily, table 5 compares the same years by outlays and percent change.

TABLE 1.—1981 ACTUAL TOTAL OBLIGATIONAL AUTHORITY AND OUTLAYS

[Dollars in billions]

Appropriation	TOA	Percent	Outlay	Percent
Military personnel:				
Active	$33.6	19.1	$33.4	21.4
Reserve	3.1	1.8	3.0	1.9
Retired personnel	13.7	7.8	13.7	8.8
Operation and maintenance	24.3	13.8	22.5	14.4
Family housing	2.0	1.1	1.7	1.1
Defense-wide contingencies				
Total	76.7	43.6	74.3	47.6
DOD total	176.1	100.0	156.1	100.0

TABLE 2.—1982 PROJECTED TOTAL OBLIGATIONAL AUTHORITY AND OUTLAYS

[Dollars in billions]

Appropriation	TOA	Percent	Outlay	Percent
Military personnel:				
Active	$35.0	16.3	$34.8	19.0
Reserve	3.5	1.6	3.4	1.9
Retired personnel	15.0	7.0	15.0	8.2
Operation and maintenance [1]	26.8	12.5	26.1	14.3
Family housing	2.3	1.1	2.1	1.1
Defense-wide contingencies [2]	5.4	2.5	5.1	2.8
Total	88.0	41.1	86.5	47.3
DOD total	214.2	100.0	182.8	100.0

[1] Estimated.
[2] Includes legislated pay raises and other military personnel legislation.

Source: Budget of the U.S. Government fiscal year 1983 p. 5–10.

TABLE 3.—1983 PROJECTED TOTAL OBLIGATIONAL AUTHORITY AND OUTLAYS

[Dollars in billions]

Appropriation	TOA	Percent	Outlay	Percent
Military personnel:				
Active	$40.3	15.6	$40.1	18.6
Reserve	4.6	1.8	4.5	2.1
Retired personnel	16.5	6.4	16.5	7.6
Operation and maintenance [1]	29.8	11.6	28.9	13.4
Family housing	2.8	1.1	2.4	1.1
Defense-wide contingencies [2]	4.2	1.6	4.4	2.0
Total	98.2	38.1	96.8	44.8
DOD total	258.0	100.0	215.9	100.0

[1] Estimated.
[2] Includes legislated pay raises and other military personnel legislation.

Source: Budget of the U.S. Government fiscal year 1983 p. 5–10.

TABLE 4.—TOA CHANGE 1981 TO 1983

[Dollars in billions]

Appropriation	1981 TOA	1983 TOA	Change	Percent of total change
Military personnel:				
Active	$33.6	$40.3	$6.7	8.2
Reserve	3.1	4.6	1.5	1.8
Retired personnel	13.7	16.5	2.8	3.4
Operation and maintenance	24.3	29.8	5.5	6.7
Family housing	2.0	2.8	.8	1.0
Defense-wide contingencies		4.2	4.2	5.1
Total personnel TOA	76.7	98.2	21.5	26.3
Total TOA	176.1	258.0	81.9	100.0

TABLE 5.—OUTLAY CHANGE 1981 TO 1983

[Dollars in billions]

Appropriation	1981 outlay	1983 outlay	Change	Percent of total change
Military personnel:				
Active	$33.4	$40.1	$6.7	11.2
Reserve	3.0	4.5	1.5	2.5
Retired personnel	13.7	16.5	2.8	4.7
Operation and maintenance	22.5	28.9	6.4	10.7
Family housing	1.7	2.4	.7	11.7
Defense-wide contingencies		4.4	4.4	7.4
Total personnel related outlays	74.3	96.8	22.5	37.6
Total outlay	156.1	215.9	59.8	100.0

Senator BYRD. Thank you very much.

Thank you, Mr. Chairman.

Chairman TOWER. Just a clarification, Senator Byrd. By personnel costs do you include more than just payment benefits, all that is comprehended by the term "personnel"?

Senator BYRD. Yes. I would include in there pay benefits, bonuses, recruiting costs. That is all part of the personnel, the cost of personnel. Retirement is part of the personnel cost. BOQ, housing allowances, and all of that.

I think what we need to do is get a total figure as to what personnel is costing the Government and the military. Of course, that would include the 1 million civilians who are part of the Defense Establishment.

Mr. BOWSHER. Yes, we will go back and check it over and make sure we have the right categories.

Senator BYRD. Thank you very much.

ABSORBING ADDITIONAL DEFENSE FUNDING

Chairman TOWER. Mr. Bowsher, in fiscal year 1981 investment increased by $16.1 billion over fiscal 1980 of $12.9 billion in procurement and $3.2 billion in R.D.T. & E., and increases were spread over about 2,400 line items. But only 36 of those items increased by more than $100,000.

As a result, was there any apparent difficulty in absorbing the additional funding?

Mr. BOWSHER. Not that we have been able to determine.

Chairman TOWER. Mr. Bowsher, your statement puts emphasis on a need for a stable and up-front investment in those programs. What will be the effect on management efficiency and program costs, and what percent of industry views the President's request in that light?

Mr. BOWSHER. It would depend on whether it was a new procurement, which would of course be a minimum. But if it is an ongoing program it might well run up the per-unit costs.

Chairman TOWER. There has been some discussion here about whether or not we can absorb in the industrial base the money that we intend to spend. Actually, would it be fair to say that if you keep spending low the industrial base is going to shrink or at

least not grow any; that there has to be some up-front investment to stimulate the kinds of industrial base required?

Mr. BOWSHER. Yes, we would agree with that, Mr. Chairman.

Chairman TOWER. It is sort of the old sequence, which comes first, the chicken or the egg.

Mr. BOWSHER. Yes. Then I think it is a question of the rate of that investment, the capacity to move forward, and how the system would be maintained.

Chairman TOWER. Thank you.

Senator Humphrey, do you have anything additional?

INFLATION'S EFFECT

Senator HUMPHREY. Yes; thank you, Mr. Chairman.

I thought Senator Warner's line was philosophical. As he pointed out, you have some very talented people working in the area of procurement. And yet we have these chronic problems. Secretary Carlucci yesterday said that 70 percent of the problems in the area of cost overruns are inflation-induced. I do not know whether he meant in terms of dollars or separate numbers of programs.

Would you agree with that? Is that a ballpark figure?

Mr. BOWSHER. I would question whether it is that high. I would have to do some checking. Now, there is no question it has been one of the major causes, no question.

Senator HUMPHREY. You pointed out in reponse to Senator Warner that underestimates of inflation later on lead to program instability and reduction in the unit or the buy, the increase in unit costs. Is that the predominant cause of our problem, estimating inflation in the first place?

Mr. BOWSHER. I would say that has been one of the major ones. I would not want to say it is the predominant one, but it is certainly one of the major ones.

Senator HUMPHREY. What leads to these underestimates? After all, we have lots of historical data on which to base these estimates and previous years' experience, if nothing else. What leads to these underestimates?

I suspect sometimes that these things are deliberately underestimated to buy in or to conform with the administration's economic policies. What leads to this constant underestimating of inflation?

Mr. BOWSHER. Inflation, Mr. Chairman, in OMB in all different administrations telling the Defense Department how much they could use as an inflation factor. That inflation factor was generally tied to that administration's economic policies. So that is one thing.

Senator HUMPHREY. In the final analysis the problem is political.

Mr. BOWSHER. To a great extent I think it is. The defense program then comes under criticism as a result of that one major problem as long as you have fairly high inflation in your economy. You see, when we had an economy without high inflation this was less of a problem.

Senator HUMPHREY. It does seem that one of our major problems is underestimating inflation, which apparently consciously or unconsciously stems from political factors. It seems to me that we need to find some means of having an independent source to provide these inflation forecasts for us. Then hopefully we would halt

these program gyrations and keep unit cost escalations down and solve this problem.

ESTIMATING INFLATION

Mr. BOWSHER. One of the things that GAO recommended several years ago, DOD actually had a system to do this at one time, was showing what the cost of that weapons system would be at different levels of inflation. We thought that was very informative, and at that time you did not have it quite as tied to the economic policies of the administration.

Mr. SHELEY. I just wanted to add to Mr. Bowsher's statement. OMB has consistently over the years taken the position that they wanted to use maybe a little less than realistic inflation rate, so that it would not be a self-fulfilling prophecy. For example, if they anticipated 10 percent they would use an 8 percent so that it would be anticipated.

My concern over it is that I have never seen it realized and that it has not been a self-fulfilling prophecy in terms of using an artificially low rate, either.

Mr. BOWSHER. I can second that. I have sat in many meetings at the Pentagon where people said, if you put it up to what you think it is going to be, it is going to be self-fulfilling. We have had a good period of time that it has been quite a bit away from the actual estimate.

Senator HUMPHREY. It seems it is a matter of choosing the lesser of two evils. You are not so sure you agree with Secretary Carlucci's intentions on saying the overruns are inflation-induced. You say inflation is one of the major causes. What are the others?

UNDERESTIMATING COSTS

Mr. BOWSHER. Well, I think there is a tendency to go to a low-cost estimate at the beginning, hoping that that will get the program approved. Not necessarily in contractor buy-ins, but before you even get to go to the contractor; just getting them into the Defense Department's overall program. And there has been more than one weapon system where that has happened.

Senator HUMPHREY. What leads to that initially?

Mr. BOWSHER. It is optimism, again, on how fast you can develop a weapon, whether you have technical problems with it or not, and whether the technical problems that you encounter be of such magnitude that it will delay the schedule. And a major delay in any of these weapons systems runs up dollars very fast. So the schedule is very key. I know some weapons systems were forecasted on very tight schedules that later could not be met.

Senator HUMPHREY. How can we avoid this problem?

Mr. BOWSHER. Again, I think trying to get some independent judgment and realism at the senior levels is the only way you can do it.

TECHNICAL COMPLEXITY

Senator HUMPHREY. Well then, we have an inflation problem. We have a problem of underestimating costs when systems are being proposed. What else?

Mr. BOWSHER. Technical complexity. In other words, the more you try to jump from this level of capability on the weapons system to the next level, the more technical risk that you build into the program, the greater the probability that you are going to have cost overruns.

Senator HUMPHREY. In that regard, how significant is Secretary Weinberger's—I have forgotten the exact terminology he used—planned weapon systems with ongoing improvements rather than having the ultimate from the start?

Mr. BOWSHER. We would think that might have some significant success toward reducing some of these problems.

Mr. SHELEY. We have been supportive toward that.

Senator HUMPHREY. What is the term?

Mr. SHELEY. Preplanned product improvement.

Senator HUMPHREY. To what programs is that being applied?

Mr. SHELEY. I have not seen it applied in any of them yet, but it is one of the issues we hope to see in this new program here.

Mr. BOWSHER. There might be some in 1982. We just have not seen it yet. We have not had enough time.

Senator HUMPHREY. We seem to come back in a number of these cases for independent estimates and second opinions. Have you made a recommendation with regard to the Department of Defense in this area?

Mr. BOWSHER. Yes, there have been some past GAO reports.

NEED FOR REALISTIC COST ESTIMATING

Senator HUMPHREY. Is there a current recommendation?

Mr. SHELEY. We would consider that one to still be outstanding, Senator.

Senator HUMPHREY. Which is what?

Mr. SHELEY. That they do inject realism.

Senator HUMPHREY. How do they do that?

Mr. SHELEY. Through the independent review. I think top management has to be very critically conscious of this.

Mr. BOWSHER. I think you misunderstood Walt. When he said "outstanding" he felt it had not been implemented yet to the extent that we had requested.

Senator HUMPHREY. Independent review, I do not think you are going to get that. What are you proposing? Are you proposing some outside agency?

Mr. BOWSHER. The GAO has never made that recommendation, Senator.

CUTTING THE O. & M. BUDGET

Senator HUMPHREY. Mr. Bowsher, I found your testimony and that of your colleagues to be very useful on providing a greater liaison between your agency and the Department of Defense. As you know, there are pressures to reduce the administration's defense

budget. You also know that more often than not that translates into cuts in the O. & M. budget.

As a general statement intended to guide the Congress and the Senate and I am sure this committee over the next several months in acting on the administration's proposals, a general statement to guide us, how would you advise us to proceed in the area of O. & M.? In other words, would you caution us against taking the easy route and dipping into the O. & M., or how would you go about it?

Mr. BOWSHER. I would give very serious consideration to logistics support and O. & M. support and the need for these weapons systems, and you are reviewing the procurement commitments that are being made.

Senator HUMPHREY. Would it not be penny wise and dollar foolish to make the predominance of cuts in the O. & M. budget?

Mr. BOWSHER. That has traditionally been the GAO's position.

Senator HUMPHREY. In other words, we need to make better use of what we have and therefore we should not pull the funding from the O. & M. budget?

Mr. BOWSHER. There is some theory among the military people I know that feel you get the big hardware and if we ever have to go to war we can always get the spares and the support.

Senator HUMPHREY. Do you agree with that?

Mr. BOWSHER. Well, it has some merit.

Senator HUMPHREY. Where would we get that?

Mr. BOWSHER. It all depends on what kind of a situation you get in. If you have to be ready and ready to go now, it leaves you in a bad position.

Senator HUMPHREY. Do you think we have the base to provide many of these items in that event?

INDUSTRIAL BASE CAPACITY

Mr. BOWSHER. That has always been a big question that people debate, and I am not sure we have done enough work. I think that the industrial base of this country could respond myself, quite readily. It is not as good, though, as it was a few years ago.

Mr. GROSSHANS. I think to a large extent, it would depend on what type of scenario you are involved in. If it is a quick attack, obviously there is a limited amount of output that you can get in the short run, looking at some of the leadtimes that are involved.

But much can be done from the standpoint of our surge capability. A lot of people talk in terms of surge and mobilization. I think these need to be separated. I think the surge ought to be pulled out of advanced funding. On some of the long lead-time items we can do quite a bit to be in a position to quickly react and get at least some of the items that are on the production line off and into the field.

And some of the initiatives that DOD has started, like multi-year procurement and some EOQ type of buys up front, I think would go a long way toward improving our capability in that area.

Senator HUMPHREY. That of course is an additional area. I do not want to get into that further. But my point is I hope, Mr. Bowsher, your statement of relative confidence in the industrial base is not

meant to encourage the view that we should be buying big arms and pouring the spare parts in.

Mr. BOWSHER. No, definitely not.

Senator HUMPHREY. Thank you, Mr. Chairman.

Chairman TOWER. Mr. Bowsher, thank you very much for your testimony.

There is one key element in controlling costs at DOD that Congress can get totally behind—the efforts of your organization. It is the committee's intention to support your efforts in this area.

[Questions with answers supplied follows:]

QUESTIONS SUBMITTED BY SENATOR JOHN W. WARNER

Senator WARNER. In light of the comments this morning concerning the risks inherent in "buying into" programs early in their development, I understand that the GAO is nearing completion of a study of the Nation's research and development of laser systems which may have applications for space-based defense systems.

Will that study address the possible dangers of "buying-in" in this high technology R. & D. program?

Mr. BOWSHER. The GAO completed a study on the DOD space-based laser program, but it does not directly address the dangers of "buying-in" in the high technology program. The forthcoming report will discuss the technological uncertainties, the advantages and disadvantages associated with an on-orbit feasibility demonstration, and options to change the pace of the program. It also points out that at this early stage of development, cost estimates are very uncertain. We are recommending that the Secretary of Defense establish a program plan containing milestones and objectives which recognizes the relative priority of the program within Defense and to commit funds to maintain program stability.

NAVSTAR/GPS SATELLITES

Senator WARNER. GAO has urged the application of multi-year procurement techniques to the procurement of NAVSTAR/GPS satellites. Do you continue to believe such an approach makes sense, and are you in agreement with DOD about the amount of savings to be realized by such an approach—which have been incorporated into the funding profile for this program in fiscal year 1983?

Mr. BOWSHER. GAO has pointed out that by using certain multi-year procurement techniques to acquire NAVSTAR/GPS satellites, DOD could achieve large savings and lessen further program schedule slippage. Given that DOD is going to deploy an eighteen satellite constellation, some type of multi-year procurement continues to appear a viable alternative which DOD should consider.

The amount of savings to be realized depends upon the type of multi-year procurement technique chosen. For example, the "Block-buy" technique appears to maximize procurement savings, although there may be increased risks with the approach. GAO is currently evaluating the NAVSTAR/GPS program. As part of this evaluation, we are exploring the savings and other advantages, as well as the disadvantages from using the various multi-year procurement techniques for GPS satellite procurement. We expect to have initial results by April 1982 and would be glad to discuss them at that time.

ADP ACQUISITION

Senator WARNER. In October 1981, the GAO published a thought-provoking study pointing out that the Federal Government could realize some significant benefits in the acquisition of its automatic data processing by applying the practices of private enterprise to such procurement.

To what degree, in the aftermath of the fiscal year Defense Authorization bill—which was intended to facilitize such streamlining—have you seen significant management reforms implemented by the DOD with regard to ADP acquisition? Is the rest of the Federal Government doing a better or worse job in this regard?

Mr. BOWSHER. We have seen no significant Department of Defense (DOD) management reform, as yet, since the Defense Authorization Bill was enacted. On February 1, 1982, Mr. Carlucci, the Deputy Secretary of Defense, issued DOD interim criteria on "exempt" versus "non-exempt" categories for the acquisition of ADP equipment and services. This policy reiterated the need for sound business and management practices while seeking to achieve maximum practical competition. These have been

long standing DOD objectives and it appears the responsibility for their implementation will still remain with the individual services.

We cannot say that the rest of Government is doing any better or worse than DOD. All agencies need to improve their processes. Over the last 2 years, the General Services Administration (GSA) has made substantial revisions in its regulations by changing the definition of competition; increasing the delegated authorities of the agencies; including conversion costs in evaluating bids; decreasing the time taken to process an agency request for procurement authority; and in addressing GAO reports on outmoded computers, software, contracting, and SBA contracts. In fiscal year 1981, GSA's time to process a delegation of procurement authority averaged 16 work days. Today, GSA review procedures rely more and more on the individual agencies being responsible for their procurement actions and guaranteeing compliance with Federal policies and regulations.

Our work in the civil agencies indicates that they, as well as DOD, have internal management problems of too much paperwork and too little effectiveness in buying computers. We are not aware of any Federal agency that has ADP strategies and plans integrated with management control and accountability practices, as found in our study of the private sector. Much room for improvement remains throughout the Government in ADP management practices and instilling financial discipline in computer acquisition and use.

WWMCS SYSTEM

Senator WARNER. The GAO has been concerned for many years about the planning, programing and support of the WWMCS system. As you know, the Department of Defense has established a joint program manager who is charged with the sole management responsibility for upgrades and streamlining of the WWMCS system.

Do you regard this as a step in the right direction and will you be commenting on this development and any repercussions it may have in a soon to be released report?

Mr. BOWSHER. The appointment of a Joint Program Manager for the WWMCS Information System (WIS) modernization program is a step in the right direction providing that the manager has the latitude and commitment to make certain that the system architecture will support the information requirements of users. DOD's current approach to modernize WIS is based on the selection of a system architecture before information requirements have been sufficiently defined. This approach puts DOD into the position of forcing requirements to fit the architecture rather thn vice-versa. DOD has not used this approach successfully in the past.

DOD recently provided the Chairman, House Committee on Government Operations their section 236 response to our October 1981 report. Our evaluation of DOD's response has been sent to the Chairman and sets forth several additional issues which if not addressed and resolved by the Joint Program Manager will minimize the timely and successful modernization of the WIS. These issues are:

1. Information requirements, sufficient to select an architecture with the greatest potential for supporting those requirements, are yet to be defined.
2. DOD has prematurely selected a networking technology before evaluating viable alternatives or simulating the impact of user requirements on the network architecture.
3. DOD's proposed standardization of WIS hardware at the instruction set level will lock the WIS modernization program into outmoded hardware technology.
4. DOD has not given thorough consideration to the use of standard commercial network protocols.
5. DOD has centralized the management but not resolved all the issues concerning the funding for WIS modernization.
6. DOD's current approach to modernizing WIS is very similar to that used for current WWMCS automated data processing system, which is considered substantially less than successful.

PERSHING II MISSILE

Senator WARNER. Mr. Bowsher, the GAO has expressed concern in the past few years with various aspects of the Pershing II missile program. There has been accounts in the press that recently the cost of that system has doubled. Can you comment as to whether or not that is the case and will you be providing an analysis of this program in the near future?

Mr. BOWSHER. A classified GAO report on Pershing II, "Rushing Production of Pershing II Missile Could Reduce Its Effectiveness", (C-MASAD-82-5) to be issues this month, comments on technical difficulties and insufficient testing of the pro-

gram. Since completion of our work, the total program costs, according to the Army, have increased about 55 percent.

GENERAL DYNAMICS/ELECTRIC BOAT

Senator WARNER. Mr. Bowsher, I understand that there is a draft GAO report, now being circulated for comment, which is quite critical of the submarine production situation at General Dynamics/Electric Boat. The GAO study seems to run counter to an interim report submitted by the Secretary of the Navy which suggests that past problems are now behind Electric Boat and the Navy.

As you know, two attack and two Trident submarines are being requested in fiscal year 1983, and thus the question of Electric Boat's production situation is of considerable concern.

Can you discuss the findings of your report and, if not, when do you expect it will be publicly released?

Mr. BOWSHER. The draft report in question was prepared in response to congressional requests from two Committees—House Armed Services Committee, Subcommittee on Seapower, Strategic and Critical Materials and the House Appropriations Committee, Subcommittee on Defense. Since comments on the draft have not been received from Defense or the Contractor and evaluated by us, I believe that it would be premature to discuss the findings of the report at this point in time. I will be glad, however, to provide you with the points of contact in the two Committees if you wish to pursue this matter further. The report should be available for release in late April 1982. At that time, I will be pleased to discuss the contents of the report.

QUESTIONS SUBMITTED BY SENATOR WILLIAM S. COHEN

SOLE SOURCE CONTRACTING

Senator COHEN. Mr. Bowsher, during the defense procurement hearings held before the Senate Governmental Affairs Committee, we discussed the Defense Department's over-reliance on sole source contracting. The problem persists and I think it deserves further discussion.

As you know, the lack of competition in DOD has been a costly problem for many years. Secretary McNamara estimated that the failure to take advantage of competition contributed to the waste of as much as 25 cents on each procurement dollar. Similarly, numerous studies, including a July 1981 GAO study, have criticized unnecessary sole source contracting in DOD. GAO estimated that two-thirds of DOID's 1980 procurements were non-competitive.

As we discussed during the Governmental Affairs hearings last October, one option might be to tighten the existing law which lists the 17 exceptions to the use of formal advertising. For example, exception 10, which allows for negotiation in situations where it is "impracticable" to secure competition by formal advertising is easily invoked and is frequently used to justify sole source contracting.

Has GAO had a chance to look at this problem since we last discussed it during the Governmental Affairs hearings?

Mr. BOWSHER. Although we have not had a chance to examine this problem since the Governmental Affairs hearings, we have recently developed a management tool which can be easily used to monitor and analyze sole-source procurement by exception category. This system can also be used to identify procurement offices which have a higher than expected number and dollar value of sole-source procurements in individual exception categories. We intend to use this system in planning future audit efforts.

We continue to believe that emphasis on the justification or lack thereof, for awarding sole-source contracts in lieu of obtaining competition would be more productive than concern over the 17 exceptions to formal advertising. Too often we have heard the implication that all negotiated procurement is noncompetitive and this is untrue.

COMPETITION IN FEDERAL PROCUREMENT

Senator COHEN. I plan to introduce legislation which would expand the use of competition in federal procurement and would impose greater restrictions on the awarding of noncompetitive contracts in both DOD and in the civilian agencies.

As you know, under the Armed Services Procurement Act, formal advertising is the preferred method of procurement, with negotiation authorized by prescribed exceptions. Despite this emphasis on competition through formal advertising, however,

negotiated contracts account for the vast majority of defense procurement contracts. Of these negotiated contracts, more than half are sole-sourced.

Recognizing that negotiation has become the rule, my legislation would impose greater restrictions on the awarding of sole-source contracts by shifting the emphasis from having to justify negotiation to having to justify noncompetitive procurements.

I believe that my approach to expanding competition in Government contracting offers several advantages. First, it recognizes that competition takes more than one form; and second, it permits sole-source contracts to be awarded only when they are truly warranted.

Do you believe that such an approach would encourage more competition in DOD contracting?

Mr. BOWSHER. The DAR currently does not specifically address what information is required to justify sole-source procurements. In our recent review for Congressman Solarz, we found many instances where procurement officials mistakenly used an exception to formal advertising to justify a sole-source award. This apparent confusion often leads to inappropriate sole-source procurements. Establishing specific criteria which must be met to justify a sole-source procurement would encourage more competition in DOD contracting.

Senator COHEN. Dr. Jacques Gansler has suggested that the lack of competition in defense contracting is primarily due to an eroding industrial base. He advocates "dual-sourcing" of defense production as opposed to the one-time R&D competition. This would involve splitting annual buys between two producers as a function of the quality and cost of their equipment in prior years.

What is your opinion of the use of dual-sourcing to increase competition in defense contracting?

Mr. BOWSHER. We believe that dual-sourcing of production requirements can be an effective way to increase competition and reduce the cost of some of the traditionally sole-sourced defense weapon systems. Several factors, however, often limit the extent of its practical application and the successful use of dual-sourcing requires selective consideration and early planning on a case-by-case basis.

The splitting of weapon system production quantities between two sources essentially requires the existence or creation of duplicate production facilities, equipment, tooling, managerial capabilities, and usually, highly specialized technical and processing skills. The cost of duplication can be quite high and may exceed the expected benefits of prime contractor dual-sourcing competition, particularly when the production quantities are relatively small. Also, the division of quantities can have a negative impact on economical production and order quantity rates.

Furthermore, the dual-sourcing approach requires the expenditure of more "up-front" money. The cost of carrying competition for the Joint (Air Force and Navy) Cruise Missile program through to the selection of two prime contractors was several hundred million dollars. This makes for hard decisions in the budget process. However, even though the circumstances of a particular weapon system may not justify dual-sourcing at the prime contractor level, opportunities may exist and should be explored at the subcontract level.

DOD COST ESTIMATING

Senator COHEN. To improve the quality of the Defense Department's cost estimating, you have recommended that there be an "effective independent review of the cost estimates, including judgments by top officials as to the realism of the estimates."

The Cost Analysis Improvement Group, known as the CAIG, with DOD has a far better record than do the individual services of predicting the costs of weapon systems.

Do you believe that it would be useful for Congress to require the Secretary of Defense to inform the Armed Services Committees of both the service estimate and the CAIG estimate for the cost of a new weapon system when requesting funding?

Mr. BOWSHER. I feel that if this is done routinely, it may eventually lead to a loss of independence and, therefore, effectiveness of the CAIG. As I stated in response to Senator Levin's question, Defense has actions underway which could improve the situation. In essence, the estimate selected should be the most realistic estimate with a rationale provided stating why it is the best estimate.

Senator COHEN. During yesterday's hearing, Deputy Secretary Carlucci emphasized that "budgeting to most likely costs" would achieve greater accuracy in cost estimating. Mr. Carlucci has stated that "one of the most harmful things to defense

costs has been the stretch-out and the tendency of program managers to buy-in," both practices which distort estimates and increase costs.

Based on your personal experience in DOD and GAO's study of the cost-estimating problem, do you think that Mr. Carlucci's initiative will be successful?

Mr. BOWSHER. I think this will be one of the more difficult initiatives to achieve. However, program managers tend to be continually optimistic about meeting their program cost, schedule, and performance goals. This optimism, or in some cases, a desire not to recognize reality, will be difficult to overcome. Program managers and contractors must be assured that it is to their benefit to make their estimates as realistic as possible.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

SAVINGS AND EFFICIENCIES

Senator LEVIN. Mr. Bowsher, I want you to put on the hat of Secretary or Deputy Secretary of Defense for the moment. If you were in that position, what, if any, additional steps beyond those currently being taken by the Defense Department would you take to effect savings and efficiencies in that Department's activities?

Mr. BOWSHER. Defense has undertaken a rather comprehensive improvement program extending to most of those areas which historically caused problems. The GAO has made numerous recommendations to improve the effectiveness of defense activities over the years. Many of our recommendations have been implemented and others are being closely examined. I would take a very close look into areas to make sure sufficient top-level attention is being applied. In particular, we feel savings are available from more emphasis on front-end planning, low-cost alternative weapons, logistics and support in design of major weapons, logistical support issues and by solving military personnel pay and other problems with cost effective rather than across the board solutions.

GAO COST REDUCTION AGENDA

Senator LEVIN. Mr. Bowsher, what would be the total annual savings of the 15 items that appear on the GAO Cost Reduction Agenda if the Defense Department implemented all of them? Of the programs implemented, how did the total annual savings achieved by the Defense Department compare with the savings computed by GAO? What explains any differences? Is DOD not implementing your suggestions as well as it could? From your point of veiw, which remaining items should receive the highest priority for implementation by DOD?

Mr. BOWSHER. The Secretary of Defense has replied to me by letter dated December 2, 1981, identifying the specific actions underway in regard to management improvements and cost reductions proposed in GAO's January 21, 1981 letter. We are in the process of replying to this letter and will furnish a copy to you together with data on cost savings that may have resulted from adoption of GAO suggestions.

DRIS PROGRAM

Senator LEVIN. Mr. Bowsher, DOD has accelerated the implementation of the consolidation of military base support activities, DRIS, Defense Retail Interservice Report, and expects to save $30 million annually from fiscal year 1983 to fiscal year 1987. Yet, the GAO has estimated that such a program could save several hundred million dollars annually. Has the Defense Department saved all the money they could potentially save? Would making this DRIS program mandatory rather than voluntary on the part of DOD increase the savings realized?

Mr. BOWSHER. While the $30 million annual savings goal for fiscal years 1983-1987 is certainly a step in the right direction, it represents a total potential savings of only $150 million. The $30 million cost saving goal is far less than one percent of DOD's annual base operating support costs. We continue to believe that much larger savings are available, and encourage DOD to steadily increase their savings goals to significantly reduce base support.

We believe that mandatory participation by the services in the DRIS program should enhance the opportunity for savings.

DOD BASE SUPPORT SAVINGS

Senator LEVIN. Mr. Bowsher, last year I proposed an amendment to the fiscal year 1982 defense authorization bill that would have required savings to be made through consolidation of base operating support functions. The Department is now claiming savings of more than $200 million in this area by fiscal year 1986.

A number of GAO suggestions concerning the Defense Department have been issued in the recent past. In addition, last January your predecessor made a number of suggestions to the Department of Defense on ways to achieve savings or make the Department's activities more efficient. With respect to each of these series of suggestions please provide the following for the record.

A list of all GAO suggestions adopted and implemented by DOD and the estimated savings associated with each suggestion;

A list of all GAO suggestions not adopted and implemented by DOD along with GAO's understanding of why the suggestions were not adopted and the estimated savings associated with each suggestion.

In your opinion, how much of an effort is DOD making to achieve savings through consolidation of base support functions?

Is $200 million in savings in this area by fiscal year 1986 a good faith effort to economize? Could DOD be doing more?

Mr. BOWSHER. We have not specifically evaluated the projected DOD base support savings of $200 million. However, DOD officials have informed us that these projected savings will be in addition to the $30 million annual goal established for the DRIS program. As I stated previously we believe this effort represents only a start at reducing base support service costs.

It should be noted that in addition to savings goals, DOD has taken other positive steps. They have established a single office to coordinate the DRIS and commercial contracting programs, and increased the services visibility of DRIS program by including major commands in the management structure. Also, the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics set forth, in a September 8, 1981 memorandum to the Secretary of Defense, a program for developing incentives for local commanders to economize on base support costs. We believe this approach has merit in that consolidation efforts will be generated from the base level. This should help overcome the parochial interests which have historically been obstacles to successful consolidations.

Furthermore, reducing overall support costs depends largely on a coordinated approach between the DRIS program and the Commercial Industrial-Type Activities program established by OMB Circular A-76. This program addresses the support services provided at specific installations, while the DRIS program considers consolidations within a 50 mile geographic radius. Although the DOD implementing instruction requires that the most cost efficient in-house organization be used for comparison with contracting costs, we have found that such studies are often not done or are incomplete. Consequently, services are contracted out before full consideration has been given to the benefits of consolidation in-house base support functions. DOD needs to assure that these cost comparison studies are based on the most efficient in-house organization.

Senator LEVIN. Mr. Bowsher, last April Deputy Secretary of Defense Frank Carlucci announced 31 initiatives to improve the acquisition process. He later added a thirty-second initiative—expansion of competition in the Defense Department—to his list.

The Defense Department is claiming $2.63 billion in savings in fiscal year 1983. In GAO's judgment how much in savings will be associated with each of the initiatives?

In GAO's view how many of those initiatives have been fully implemented? What initiatives remain to be implemented? Why have they not been implemented?

Mr. BOWSHER. We have not attempted to estimate the savings that could be expected through implementing each initiative. Savings may be measurable for some initiatives while others may be intangible or even not measurable due to the nature of the initiative.

Based upon the latest information we have received, three of the initiatives (numbers 26, 27, 28) could be considered implemented. Implementation of the other twenty-nine has begun and they are in varying stages of implementation as policy. Measuring actual accomplishments may take several years for some. The far reaching effect of some initiatives, the size of the Department of Defense, and the large number of acquisition programs will require time for all of the changes to take effect.

Senator LEVIN. Mr. Bowsher, the General Accounting Office has periodically reported that there are untapped opportunities for competing contracts in the Department of Defense. In September of 1981, the GAO issued a report for Congressman Solarz which pointed out some of these lost opportunities.

Does GAO see any real progress in the Defense Department to expand the use of competitive contracting techniques?

What opportunities remain in this area, especially at the subcontractor level?

Does GAO favor the use of dual sourcing for major weapon systems? Which systems would GAO recommend be dual sourced?

Mr. BOWSHER. Deputy Secretary of Defense Carlucci's initiative on increasing competitive procurement may result in an expanded use of competitive contracting within DOD. It is a little too early at this point, however, to determine whether this initiative has had any significant positive impact on DOD's competitive profile.

Many of the lost competitive opportunities discussed in our report for Congressman Solarz probably still exist—especially in small dollar procurements. Successful implementation of Deputy Secretary of Defense Carlucci's competition initiative should result in a greater amount of competitive procurement for these goods and services.

We do not know what competitive opportunities exist at the subcontractor level. To the best of our knowledge, DOD does not systematically compile competitive statistics for subcontracts. Without this data base, it would be very difficult to assess competitive prospects or how much subcontracting is currently being awarded on a competitive basis.

Senator LEVIN. Mr. Bowsher, what are GAO's views on each of the candidate programs proposed for multi-year procurement in the President's fiscal year 1983 defense budget proposal?

Mr. BOWSHER. Each candidate program requires an in-depth evaluation which we have not yet performed. By letter dated February 5, 1982, Chairman Tower requested that we review each candidate program. This review is underway and we will provide a copy of our evaluation to you.

Senator LEVIN. For many years, DOD has strongly resisted congressional attempts to establish an independent Inspector General at the Pentagon, similar to those established in all the other Federal departments under the Inspectors General Act of 1978. The General Accounting Office has supported establishing such an office at DOD, claiming that it is necessary to have an independent authority at the Pentagon who will not be subject to undue pressure from superiors as he investigates waste, fraud and abuse.

As part of its attempt at management efficiencies, DOD last year established a new position—the Assistant to the Secretary of Defense for Review and Oversight. This individual, according to a Pentagon description of his functions, would seem to have much of the same responsibilities as an independent Inspector General.

Does GAO think this new position is an adequate substitute for having an independent inspector general in DOD? Why not?

Mr. BOWSHER. GAO supported the Inspector General Act of 1978 and other legislation that has centralized internal audit and investigative activities in several Federal agencies under statutory Inspectors General. We believe such legislation is beneficial because it would ensure that: high level agency attention is given to promoting economy and efficiency and combating fraud, waste, and abuse; the work of audit and investigative units in those agencies and throughout the Government is better coordinated; and both the Congress and agency heads receive information on problems involving economy and efficiency and fraud and abuse.

GAO has long supported the concept of an independent Inspector General for Defense and reported that such an office was feasible and desirable. I reaffirm that support.

The new position of the Assistant to the Secretary for Review and Oversight has many responsibilities similar to those given an independent Inspector General. For instance, he is a focal point for the Department's efforts to deal with fraud, waste, and abuse. He also heads a staff of internal auditors and criminal investigators.

However, there are significant differences between the Secretary's assistant and an independent Inspector General as envisioned by H.R. 2098 and S. 1932. The following table highlights some of these differences.

MAJOR DIFFERENCES BETWEEN THE INSPECTOR GENERAL CREATED BY H.R. 2098 AND S. 1932 AND THE ASSISTANT TO THE SECRETARY OF DEFENSE FOR REVIEW AND OVERSIGHT

CONFIRMATION BY THE SENATE

The inspector general would be appointed by the President with the advice and consent of the Senate, without regard to political affiliation, and solely on the basis of integrity and demonstrated ability in accounting, auditing, financial analysis, law, management analysis, public administration, or investigations.

The Assistant to the Secretary for Review and Oversight may be appointed by the Secretary of Defense without the advice and consent of the Senate.

KEEPING THE CONGRESS INFORMED

The inspector general would be responsible for keeping both the Secretary and the Congress informed about problems and deficiencies.

The Assistant to the Secretary for Review and Oversight reports to the Secretary. Responsibilities to the Congress are not defined.

PERMANENCE OF POSITION

The inspector general would be a permanent position created by statute.

The Assistant to the Secretary for Review and Oversight was created by a Department of Defense Directive, and the position can be eliminated by the Secretary of Defense.

REMOVAL FROM OFFICE

An inspector general may be removed from office by the President. The President shall communicate the reasons for removal to both houses of Congress.

An Assistant to the Secretary for Review and Oversight may be removed by the Secretary of Defense.

An additional difference is that H.R. 2098 and S. 1932 would place the Defense Contract Audit Agency (DCAA) and its approximately 3,400 personnel under the Inspector General. Currently, DCAA is organizationally under the Assistant Secretary (Comptroller).

We do not believe DCAA should be included in the proposed Inspector General Office. About 45 percent of DCAA's work is spent on preawarded surveys, which provide contracting officers with financial information and advice on proposed contracts. We view these activities as more of a procurement support function than an audit or review function.

Other DCAA activities, however, may be consistent with the types of work that should be performed by an independent audit organization under an Auditor General. We advised the Senate Committee on Governmental Affairs that in considering the merits of shifting only a portion of DCAA's resources into the proposed office, careful consideration should be given to the present balance of effort between two types of activities—(1) those that support the procurement function from an operational standpoint and (2) those that should be performed by an audit organization independent of program operations.

REMOVING WASTE, FRAUD AND ABUSE AT DOD

Senator LEVIN. Does GAO think that an Assistant to the Secretary of Defense, directly answerable to the Secretary of Defense for his job, can exercise the independence of judgement and authority needed to properly investigate and remove waste, fraud and abuse at DOD?

Is not such a position, even if filled by a highly competent individual with the best of intentions, too vulnerable to the personal control of the Secretary of Defense?

Mr. BOWSHER. The Assistant to the Secretary of Defense is under the authority, direction, and control of the Secretary. The extent of his authority is completely dependent on the support that the Secretary gives him to investigate fraud, waste, and abuse in the Department of Defense. In addition, his authority to investigate matters in the three military departments is unclear. Currently, it appears investigations of matters in these departments will be left largely to auditors and criminal investigators under the control of the military department's Secretaries.

In contrast, the proposed Inspector General, to be appointed by the President with the advice and consent of the Senate, would be under the general supervision of the Secretary or Deputy Secretary. However, neither the Secretary nor Deputy Secretary could prevent the Inspector General from initiating, carrying out, or completing any audit or investigation, or from issuing any subpoena during the course of any audit or investigation.

The proposed Inspector General would have wide latitude in performing audits and investigations throughout the Department. Responsibilities would include keeping the Secretary and the Congress informed of fraud, abuses, and deficiencies; recommending corrective action; and reporting on progress made in implementing the corrective action. "Whistle blower" complaints would also be received and investigated. Semiannual reports to the Congress would be required.

In carrying out these responsibilities, the Inspector General would be required to comply with standards established by the Comptroller General of the United States for audits of Federal establishments, organizations, programs, activities, and func-

tions. In addition, the Inspector General would be required to expeditiously report to the Attorney General whenever he or she had reasonable grounds to believe that Federal criminal law had been violated.

Senator LEVIN. Would he not have to rely too much on the Secretary of Defense for the necessary bureaucratic backing and support to receive cooperation from the military services and other components in DOD in his investigations? How can an "Assistant to the Secretary" have enough clout to handle a service Secretary or even more senior DOD officials?

Mr. BOWSHER. The Assistant to the Secretary does not have direction and control over the military services. His ability to receive cooperation is in part attributable to his persuasiveness, however, it is largely due to the strong support of the Secretary. To his credit, the current Assistant to the Secretary has gotten cooperation from the military services on several of his projects.

In a more adverse environment, an "Assistant to the Secretary" may not be able to obtain adequate resources and support to assure effective review and oversight.

Senator LEVIN. Has the Secretary of Defense insituted any procedures or created any operating mechanisms to remove his Assistant for Review and Oversight from the possibilities of undue influence from either himself, the Secretary of Defense, or other senior DOD officials above him, his Assistant for Review and Oversight? If so, are these procedures effective?

If not, what mechanisms would you suggest?

Mr. BOWSHER. Aside from the professionalism of the incumbent, that are no mechanisms to insulate the Assistant to the Secretary from undue influence.

We believe that a statutory Inspector General as proposed in H.R. 2098 and S. 1932 is the best means of assuring independent audit and investigative oversight in the Department of Defense.

Senator LEVIN. If GAO has not undertaken an evaluation of the position and operations and effectiveness of the new Assistant to the Secretay for Review and Oversight and compared and constrasted them to that of an independent Inspector General, are you going to do so? Will you supply it to me?

Mr. BOWSHER. Our Accounting and Financial Management Division recently issued a study of Defense's audit and investigative organizations which compares the "Assistant to the Secretary" and the proposed Inspector General ("Who is Watching the Defense Dollars?", AFMD 82-26, February 5, 1982). I am sending you a copy of the report.

In addition, GAO will continue to evaluate the operations and effectiveness of the Assistant's role in oversight of DOD's audit and investigative functions. We are currently viewing the effectiveness of DOD's investigators in detecting the preventing fraud, and we have several other reviews scheduled which deal with specific aspects of the operations and effectiveness of the Defense Department's efforts to deal with fraud, waste, and abuse.

Senator LEVIN. Mr. Bowsher, following your suggestion, DOD has transferred wholesale inventory management responsibility for 200,000 consummable items to DLA and expect to realize a savings of $15 million annually. Yet your office claimed that $280 million annual savings could be realized by transferring the responsibility for 1.3 million items to DLA. In addition, the Navy has said that it could transfer hundreds of thousands of more items.

Why should not more items be transferred and what would you consider to be a reasonable time for these transfers?

Mr. BOWSHER. The $280 million potential cost reduction cited in the Secretary of Defense's letter of December 2, 1981, is attributable to three separate GAO supply activity consolidation proposals:

	Million
Centralized management of ammunition	$200
Consolidation of management of consumable items	72.9
Elimination of Marine Corps logistics overlap	7.5

The $72.9 million potential savings attributable to the consolidation of management of consumables was estimated by the Defense Audit Service in their report of May 29, 1980.

The announced transfer of wholesale inventory management responsibility for 200,000 consumable items to the Defense Logistics Agency is a test to demonstrate the feasibility of the consolidation proposal. The 200,000 items will be drawn from the military services on a pro rata basis, and will be selected in such a way as to be representative of the total consumables considered for transfer. The results of this initial transfer, including cost and supply performance, will be analyzed and used as the basis for a decision on possible transfer of the remaining consummable items.

Transfer of the 200,000 items will begin in April and be completed in October 1982. Analysis of results of the transfer will continue for 6 to 8 months following that date. If the test produces favorable results, we believe that DOD should immediately begin the transfer of the other million or so consummable items. Considering the magnitude of this task, we believe it could best be accomplished over a 2 to 3 year time period.

AIRCRAFT DEPOT MAINTENANCE

Senator LEVIN. Mr. Bowsher, the GAO suggested that Aircraft Depot Maintenance be placed under single management. DOD has reviewed this proposal and has declined to support a single manager approach. Have you reviewed this study and would you critique DOD's response?

Mr. BOWSHER. According to our July 12, 1978 report, "Aircraft Depot Maintenance: A Single Manager is Needed to Stop Waste," LCD-78-406, DOD actions to correct duplication in aeronautical depot maintenance has not created the necessary improvements. Efforts were considered hampered for a number of reasons. Among the reasons given were: the lack of Defense-wide visibility and control over costs, workloads, and resources, and the inability of reluctance of the services to make decisions unpopular with the services but beneficial to Defense.

We recommended that the Secretary of Defense should either designate or establish a single manager over aircraft depot maintenance. The Deputy Assistant Secretary of Defense took issue with GAO and continued to support the JLCs in their efforts to reduce depot maintenance duplication.

In March 1980 the JLCs created the Joint Aeronautical Depot Maintenance Action Group (JADMAG) to develop and recommend actions to the services that would improve integration, coordination, and efficiency in aeronautical depot maintenance systems. The JLC also added resources and authority to their Maintenance Interservice Support Office (MISMO).

However, in March 1981, concerns about the current DOD aeronautical depot maintenance systems resurfaced. It was then that the Deputy Secretary of Defense directed preparation of an option paper addressing the establishment of a single manager for DOD aeronautical depot maintenance. A work group made up of contractor, OSD, service, joint service staff, and OMB personnel was established to do the study.

The results of the study reported in June 1931 concluded that the quantitative information available for analysis was inadequate to support recommendations one way or the other on major changes to the structure of aeronautical depot maintenance (ADM). The report went on to state that DOD has achieved reductions in the costs of ADM. One of the examples given was that aeronautical elements of the JLC MISMO operation are now producing documented cost avoidance by negotiating interservice depot maintenance agreements for new aeronautical hardware systems. It was the study group recommendation to have depot operations by the services with master planning by JADMAG and more interservice coordination through "beefed-up" MISMO's.

OSD did not totally agree with the study panel. While they agreed to keep the current organizational structure for ADM, it was decided that oversight should be put in a new task force chaired by the Deputy Assistant Secretary of Defense (MRA & L) and not in JLC groups. According to OSD, an important function of this Management Task Force will be to review and approve both individual and joint service plans and to take the necessary follow-up actions to achieve their goals in this important area. These goals, however, have not been spelled out nor have milestones been established for the completion of specific objectives. We strongly believe that the success of the Task Force is tied to the immediate establishment of program goals and milestones for achieving these goals, and OSD commitment for seeing that actions are taken. If the Task Force is unable to effect the needed changes within a reasonable time, we believe that more drastic action would be warranted. In such a case DOD should implement the single manager concept without further delay.

WHOLESALE/RETAIL INVENTORY MANAGEMENT

Senator LEVIN. Mr. Bowsher, GAO has suggested that wholesale and retail inventory management could save up to $100 to $200 million. Yet, DOD's actions in this area will result in a one-time savings of only $30 million. Does GAO think that DOD's actions are sufficient? What are GAO's further recommendations on cost savings through inventory management?

Mr. BOWSHER. In a letter dated December 2, 1981, the Secretary of Defense addressed several areas which GAO had recommended improvements and which would

result in significant savings. One of these areas was more effective use of inventories. The $30 million savings cited above were only examples of savings expected to occur in fiscal year 1982 as a result of actions taken by the military services to implement GAO's recommendations for improving wholesale and retail inventory management. The Secretary pointed out that in many instances DOD had accepted GAO's recommendations but was unable to specify the savings that would result from their implementation.

The Secretary noted, however, that DOD has placed a high priority on focusing attention in this area and, in cooperation with the military services, is working to speed up current implementation plans on actions underway or planned. He noted that DOD will seek to identify additional savings that may result from these efforts and reflect them in the fiscal year 1983 budget request.

Specific recommendations designed to bring about these additional savings have been included in our reports. For example in a report to the Congress entitled "Opportunities Still Exist for the Army to save Millions Annually Through Improved Retail Inventory Management," LCD-81-16, January 19, 1981, GAO pointed out that the Army could realize estimated procurement savings of $26 million by:

Eliminating a 3-year retail excess stock retention level for critical items and reprograming of retail level automated logistic systems to provide for daily identification, reporting, and return to the wholesale system of critical items in excess of current local needs (Savings: $55 million);

Revising retail supply policy and automated programs to provide for use of serviceable materiel returns to reduce forecasted materiel requirements at Army installations and corps supply activities (Savings: $58.5 million);

Reprograming of the standard automated installation and corps logistic system to prevent inclusion of erroneous replenishment order ship-time materiel requirements for one-time item needs in quarterly inventory budget stratification reports. Also, eliminating the division logistic system automated capability of erroneoulsy changing demand codes on orders from nonrecurring to recurring when the orders cannot be filled at the division level and are passed to the wholesale level (Savings: $12.5 million).

The Army has agreed with our recommendations and has advised us of specific actions taken to implement them. This report on the Army's inventory practices is but one of several GAO reports addressing inventory management throughout the military services. We will continue to monitor DOD's progress in implementing our recommendations.

Senator LEVIN. Mr. Bowsher, GAO recommended that DOD examine lower cost alternatives prior to approval of new weapons. Secretary Weinberger claimed that the 32 initiatives address this problem. In your view, are the 32 initiatives responsive and sufficient in this area? Are there other initiatives that DOD should undertake in order to improve their front-end planning?

Mr. BOWSHER. In our opinion front-end planning cannot be overemphasized. Some initiatives such as use of competition, risk assessment, and budget to most likely cost, should aid front-end planning. More important, adherance to the OMB Circular A-109 on major system acquisitions would assure adequate front-end planning.

Senator LEVIN. GAO also suggested that earlier consideration be given in the procurement cycle to life-cycle logistics and support issues. You refer in your statement to Carlucci Initiative No. 9 as being directed toward improvements in this area. You outline the problem that future support and readiness requirements often are overlooked by program managers in their efforts to fund development and initial deployment of weapons systems.

Yesterday, Deputy Secretary Carlucci testified that DOD is making special efforts to increase the visibility of support funding and to determine whether there is sufficient funding for such purposes.

Do you think DOD is doing enough in this area, either through Initiative No. 9 or through their special "visibility" efforts? Is Initiative No. 9 being adequately implemented? Has DOD been responsive enough to GAO suggestions in this area?

Mr. BOWSHER. A recent Defense report on progress regarding initiative No. 9 states that there has not been a substantial shift in traditional management priorities. At all levels in the acquisition hierarchy emphasis is still on cost, schedule, and performance issues. As I indicated in my prepared statement, it takes time to change attitudes. Persistent and aggressive follow-up is necessary if life-cycle logistics and support issues are to receive attention early in the acquisition cycle.

To overcome these problems DOD plans to institute a review mechanism to assure that acquisition plans include the support and readiness initiatives, and that the necessary resources to implement the initiatives are also available. In summary, we believe these initiatives have great potential for improving weapon system support

and readiness, and we will continue to closely monitor the progress being made on their implementation.

DOD COST ESTIMATING

Senator LEVIN. In your statement on page 3, you discuss the need for better cost estimating at DOD, including the need for "an effective independent review of cost estimates, including judgments by top officials as to the realism of the estimates upon which decisions are made."

Yesterday, Mr. Carlucci emphasized how much DOD has done to improve its budgeting procedures so that its cost estimates are much more accurate. One of his major 32 management initiatives was directed toward better cost estimating, as an acknowledgment that DOD and the services have had serious problems in the past with under-estimating costs to develop and procure weapons systems.

Does this initiative go far enough in your opinion?

Mr. BOWSHER. The initiative would require the Services to budget to the most likely or expected cost, including predictable cost increases due to risk, instead of contractually agreed-upon cost. Incentives would be established to accurately project costs. Overall, we feel this is a major step, however, the types of factors that result in long-term cost growth must also be minimized. These include optimistic cost estimating, increasing quantities, development problems, and stretching-out delivery schedules.

PROGRAM ANALYSIS AND EVALUATION BRANCH

Senator LEVIN. It is my understanding that DOD has a special office within the Office of the Secretary—in its Program Analysis and Evaluation Branch—which was established to give more independent scrutiny to program cost estimates from the services and thus try to arrive at more accurate estimates. Is this not so?

Mr. BOWSHER. Yes, that is correct.

Senator LEVIN. This office, known as the Cost Analysis Improvement Group—the CAIG—is regarded as the most independent program cost estimating body within the Pentagon, is it not?

Mr. BOWSHER. To the best of our knowledge, this is also correct.

Senator LEVIN. Historically speaking, is it not true that when one compares initial program cost estimates done by the CAIG and done by military services with the actual costs experienced, that CAIG's estimates usually have been more accurate and closer to the mark?

Mr. BOWSHER. GAO has not examined all the estimates prepared by the CAIG. Where we have, the CAIG estimates were closer to the eventual cost.

Senator LEVIN. Last December, during our B-1 deliberations, I asked DOD for CAIG's program estimate for the B-1B so we might see where and how its assumptions and cost estimates differed from those provided by the service. That request was refused.

Should not Congress have access to such CAIG estimates for all programs to learn and understand why and how they differ from those provided by the services?

Would not this information help Congress make better decisions about present and future defense programs, especially from the perspective of overall "affordability," making sure there are enough dollars in the defense budget to buy enough of the programs we need in sufficient quantities? Your own statement stresses the importance of knowing overall affordability in making correct decisions about present and future defense programs.

Mr. BOWSHER. I suspect that the Secretary of Defense would be reluctant to provide any estimate other than an official DOD estimate. Congressional insistance on being provided the CAIG estimate would probably lead to a neutralizing of what is supposed to be an independent estimate. I believe there should be one estimate provided by DOD to the Congress. It should represent what the Secretary of Defense and the Services have agreed upon as their best possible estimate. As part of their current initiatives, Defense says it is trying to make sure the best estimate (CAIG, Service, or other) is selected. DOD should provide this estimate to Congress with rationale for the choice selected. This would be a major improvement if it can be carried out.

B-1 BOMBER

Senator LEVIN. Mr. Bowsher, last fall the GAO released a listing of costs it believed appropriate to include in arriving at a total cost for acquiring the B-1 bomber. The Congressional Budget Office subsequently added these costs to the Air

Force costs for the baseline bomber and, adjusting for CBO economic assumptions, arrived at a total cost of $39.8 billion dollars for the B–1. Does your office now believe that the list of additional costs you presented last fall are still appropriate costs to be attributed to the B–1? Could you furnish for the record your current best estimate for the appropriate costs in both current and constant fiscal year 1981 dollars?

Mr. BOWSHER. DOD instructions define the elements that are to be included in program acquisition costs. While the instructions leave some room for interpretation, we believe the types of costs listed on page six of our October 1981 briefing paper reasonably fall within DOD's definition of program acquisition cost. Accordingly, we still believe those costs should be included in the B–1B program cost estimate.

Certain other costs listed on page 8 of the briefing paper, should also be considered as part of B–1B program costs if DOD decides to add those capabilities. For example, we reported cruise missile carriage capability, if added to the B–1B, would increase the program cost estimate by $650 million.

GAO plans to follow up on the issues related to the B–1B program cost estimate beginning in March 1982. While we understand the Air Force has refined some of its previous estimates, GAO has not, through February 1982, reviewed them.

WHOLESALE AND RETAIL INVENTORIES

Senator LEVIN. Mr. Bowsher, the services have responded to GAO's reports on use of wholesale and retail inventories of parts more efficiently. Have they gone far enough? What additional steps should be taken by the services to improve their performance in this area?

Mr. BOWSHER. In our opinion the military services have not gone far enough in their efforts to use inventories more efficiently. Over the years we have issued numerous reports addressing weakness in the management of the services' inventories and recommended specific actions to strengthen it. Yet many of the problems continue to exist.

Some specific areas which have been identified to the services as needing improvements include:

Visibility over stocks in the supply system.

Practices in forecasting and computing requirements.

Numerous stockage levels being maintained.

Requisitioning procedures and practices at both wholesale and retail levels.

Lack of uniformity between the services in implementing DOD policies.

On this latter point, a basic weakness appears to be that DOD does not follow-up to assure that its policies are being effectively implemented. In many responses to our reports, Defense often states that problems occur because the services are not following Defense policy. However, we rarely find any effort by Defense to assure that its policies are being implemented and carried out by the military services. Therefore, in addition to taking action on the specific recommendations presented in the various reports, Defense should be more attentive in assuring its basic policies are being consistently and routinely implemented by the military services.

FOREIGN MILITARY SALES

Senator LEVIN. Mr. Bowsher, GAO has recommended that DOD should strengthen its accounting for and financial management of the foreign military sales program. While DOD has responded in part to these suggestions, what further actions would you recommend and how much money would you expect them to save?

Mr. BOWSHER. Defense has continued to experience problems in accounting and financial management of the foreign military sales program during the past decade because it lacks an adequate centralized accounting system.

We reported in 1979 that there are certain advantages to developing a comprehensive centralized accounting and financial management system. These advantages include: Uniform accounting and reporting, thus eliminating the reporting by the services of nonstandard accounting data and providing greater accounting control.

Timely and complete adoption of Defense's accounting policies.

Direct control over foreign military sales disbursements.

Improved accounting for the program, thus better enabling the Department to meet its fiduciary responsibility to its foreign customers.

Better programwide planning because accounting and financial management will not be fragmented.

Since our report, Defense has allowed each military department and the Security Assistance Accounting Center to continue to operate their own financial manage-

ment and accounting systems. Because of this need for a centralized accounting system, Defense has continued to experience problems in identifying costs incurred to operate the foreign military sales program and has not been able to provide foreign countries with an accurate accounting for funds deposited in their trust fund accounts.

Efforts to correct foreign military sales accounting and financial management problems have been piecemeal.

Because Defense had not developed an adequate accounting system, its problems in identifying costs incurred to operate the foreign military sales program and in providing foreign countries with an accurate accounting for their funds have continued. To remedy this serious problem, in May 1979, we recommended that the Congress require Defense to produce a plan for centralizing accounting.

The House Appropriations Committee, in its fiscal 1980 report, recommended that Defense produce a plan for centralizing accounting. The plan was to be developed by March 1980.

Instead, in March 1980, the Department provided a detailed schedule for completing a centralized disbursement test and providing the findings, conclusions, and recommendations by January 31, 1981.

By June 1980, it became evident that the centralized disbursement test would not result in valid conclusions, primarily because the number of contracts and cases considered by Defense was inadequate to constitute a valid test. Also, because significant delays were encountered, the remaining time available for the test was insufficient. The Defense Audit Service, in September 1980 recommended, and Defense agreed, to expand the test and change the established milestone dates given to the committee.

A revised test plan was developed in October 1980. The revised plan increased the test size and called for completion by December 30, 1981, with a final report to the Congress by December 31, 1981.

We do not believe the test as outlined will comply with the original requirements established by the committee to provide a plan to centralize accounting and financial management. The test does not address problems in obligation accounting, expenditure authority, or case level accounting, and does not insure that all costs properly chargeable to foreign customers are fully recovered.

The Defense Audit Service recently completed an audit of this test. However, their audit report has not been finalized.

Until a centralized accounting system is developed, problems such as inadequate accounting for trust funds can be expected to continue. Also, Defense cannot hope to identify and collect all costs incurred in selling goods and services to foreign customers without an adequate accounting system.

Recent GAO reviews show that, as a result of this need for a centralized accounting system, past problems are continuing. However, because of deficiencies in current Defense accounting systems, the total amount of costs which are not recovered from foreign customers cannot be identified.

BACKLOGS OF EQUIPMENT

Senator LEVIN. Mr. Bowsher, in your reviews of the services' various depot maintenance programs, what conclusions have you reached concerning backlogs of equipment waiting to be overhauled? In your opinion should Congress and the Department of Defense make it a policy to completely eliminate backlogs of equipment waiting for overhaul?

Mr. BOWSHER. The goal of eliminating all maintenance backlogs has significantly increased the workload at depot facilities. To accommodate the increased workload the Services have hired additional personnel, used temporary employees, and authorized increased overtime paid employees.

GAO has concerns about the zero backlog goal for several reasons. First, it is inefficient. The increase in the size of the work force and the use of temporary employees has increased the cost per unit of output. Reducing the backlog to zero precludes an orderly scheduling of deferred work in economic lots for efficient processing. We are paying a price to process the added equipments.

Secondly, included in the workload is a mix of high and low priority items. The Defense Audit Service, last October, examined the Army's maintenance backlog and found that the type and number of items in the backlog did not tend to create readiness problems. Many items were either not combat essential or were so few in comparison to total inventories that no mention of the items were made in readiness reports. In addition, the Army provided no evidence that backlogs were directly relatable to readiness problems in the Army. The Defense Audit Service also reviewed

readiness reports for the Navy and found no evidence that the backlog of airframes and aircraft engines were related to readiness problems in the Navy.

Finally, in a number of reports we have questioned the basis for using current operating cycles for maintenance scheduling and classifying of equipments as backlogged maintenance when it fails to meet this schedule. Our contention is that the operating cycles have not been engineered based on historical failure data but have been arbitrarily established over the years. We have recommended going to an inspection of an item to determine its materiel condition and readiness, and then scheduling maintenance actions based on the results of these inspections. This concept is commonly referred to as reliability centered maintenance (RCM).

In summary, GAO does not believe it is practical to completely eliminate backlogs of equipment. The Services should determine what the optimum level of backlog should be and how its reduction will improve readiness.

REAL PROPERTY MAINTENANCE

Senator LEVIN. Mr. Bowsher, the Defense Department's fiscal year 1982 supplemental request includes $460 million for real property maintenance. This comes on top of the $3.7 billion in real property maintenance already appropriated for fiscal year 1982. My concern is not with the need to commit resources to real property maintenance, but rather with the timing of this request.

From your experience with DOD's real property maintenance program, do you think the military services will be able to execute this large supplemental increase in real property maintenance during the rest of fiscal year 1982 in an orderly manner?

Would it be better from a management point of view to postpone this fiscal year 1982 supplemental increase in real property maintenance until fiscal year 1983?

Mr. BOWSHER. The Services may have problems executing a large supplemental increase in real property maintenance for the remainder of fiscal year 1982. They have already received sizable increases in two successive fiscal years, 1981 and 1982 of $1.6 billion—$629 million for the Air Force, $795 million for the Army, and $220 million for the Navy. GAO tested some of these projects to see how they related to readiness and sustainability.

GAO has two concerns: The first is the type of projects the Services are funding. At the selected bases we visited, we saw a number of essential and well-justified projects. We also saw some that did not appear to be of the highest priority. Included, for example, were projects such as a new golf course maintenance building, a new gatehouse and visitors center. We saw expensive renovations to World War II barracks used for summer training that still left them in a sub-standard condition and did not appear to be cost effective. We found that command and base officials have the primary responsibility to rank real property maintenance projects as they see fit.

While it can be argued that some of these projects improve retention and quality of life, the question arises as to whether these are the types of projects that should be funded while critical mission items go unfunded. There also needs to be a better definition of what constitutes "quality of life" projects.

We also noted that real property maintenance projects were not always funded in order of priority which leads to our second concern. Some projects of lower priority were funded because they were relatively simple and were easily contracted for. Officials at some of the installations indicated to us that they may have problems in the future absorbing increased funding due to the lack of personnel to design, engineer, and administer additional projects.

We would concur that deferring a supplemental increase to the fiscal year 1982 real property maintenance account could be done without affecting DOD's efforts to enhance combat capability.

INDEPENDENT REGULATORY COMPENSATION BOARD

Senator LEVIN. Mr. Bowsher, DOD opposed your suggestion of the establishment of an independent regulatory compensation board for the purpose of setting and adjusting military compensation on the grounds that it would result in loss of authority by the Secretary of Defense. Do you see such a board as constituting a "loss of authority" and what are the positive aspects of such a program?

Mr. BOWSHER. Senator, you are correct, DOD did oppose our recommendation that a permanent, independent compensation board be established to evaluate alternative military pay proposals, make legislative recommendations, and continuously monitor the compensation system. DOD felt that it would be counterproductive to

have a "headless fourth branch" of Government interject itself into DOD's operational chain of command.

No, I do not see such a board as constituting a "loss of authority" by DOD or the military services. However, I do believe DOD's reaction to this suggestion completely missed the key issue of the report. The key issue is not whether our independent compensation board is established, although we still believe this has considerable merit. Rather, the key issue and the focus of the primary recommendation in the report to which you referred is that written military pay principles should be established to provide a statement of the Government's commitment to compensating military members and serve as a guide against which future changes in pay, including special and incentive pays, could be evaluated. Although Defense contends that it is guided in setting levels of military pay by a combination of the "comparability" and "competitiveness" principles, it has steadfastly refused to lay out in writing that it is guided by these principles or how these principles are to be applied to individual pay decisions.

As you may or may not know, at the present time Defense has in excess of 25 different special and incentive pays—in addition to basic pay, allowances for quarters and subsistence, and variable housing allowance—and is adding to this number continually. Because Defense has refused to address this question of pay principles up front, both the Department and this committee have been forced to deal with pay decisions on a piecemeal basis. In our opinion, this has resulted in ineffective and inefficient use of manpower dollars and, we sense, has caused considerable frustration on the part of many members of this committee in trying to figure out how all the pieces of the military pay puzzle fit together.

Senator, you asked specifically about the advantages of establishing an independent pay board as we suggested. As you no doubt know, over the past decade and a half there have been numerous top level commissions appointed to study and make recommendations on how the military pay system could be improved. Although these commissions and study groups were generally thorough in their analysis and their recommendations were sound, almost without exception no action was taken on them. Even the quadrennial review of military compensation, a process carried out within the Department, has been largely impotent to bring about any major improvements in the system.

An independent board differs from previous ad hoc commissions in that it would have (1) permanent staff and research capability to develop an institutional memory and (2) the authority to submit its recommendations and draft legislation to the Congress without the consensus of the services, DOD, and OMB.

An important function of the board would be to monitor the military compensation system and recommend changes for action by the President and the Congress. A compensation system needs periodic evaluation to ensure that it is meeting the organization's needs. This requires close monitoring by experienced personnel who can determine problems and recommend corrective action. Currently the quadrennial review process is used to perform this function. However, this process has been largely unsuccessful in obtaining concurrence within DOD and the services for many of its recommendations to reform the system.

We do not see such an independent board as taking away any of DOD's authority any more than the Defense Manpower Commission or the President's Commission on Military Compensation took authority away from DOD. We would fully expect the Department to interact with the board and, if it believed necessary, to make counter legislative recommendations. There is little doubt in our mind that such a process would, in the long-term, make for a more cost-effective military pay system, as well as provide some much needed stability to the process.

Chairman TOWER. We thank you for the contribution that you make. We thank you for appearing here this morning.

Mr. BOWSHER. Thank you very much, Mr. Chairman.

Chairman TOWER. You are excused at this point.

[Whereupon, at 11:43 a.m., the committee proceeded to other business.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

WEDNESDAY, FEBRUARY 10, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

ARMY PROGRAMS

The committee met, in open session, at 10:14 a.m., pursuant to notice, in room 212, Russell Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Warner, Humphrey, Cohen, Quayle, Nunn, Hart, and Levin.

Staff present: Rhett B. Dawson, staff director and chief counsel; Francis J. Sullivan, minority staff director; James F. McGovern, general counsel; Paul C. Besozzi, minority counsel; Christine E. Cowart, chief clerk; Brenda K. Hudson, assistant chief clerk; Michael B. Donley, Robert S. Dotson, Frank J. Gaffney, George K. Johnson, Jr., James R. Locher III, David S. Lyles, José E. Martinez, Anthony J. Principi, Patrick L. Renehan, Carl M. Smith, James C. Smith, Richard D. Finn, professional staff members; Ralph O. White, Jr., research assistant; and Kimberly A. Manning, staff assistant.

Also present: Dennis P. Sharon, assistant to Senator Goldwater; Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Don Imgram, assistant to Senator Quayle; Paul Schreiber, assistant to Senator Denton; Coit D. Blacker, and Bill Shore, assistants to Senator Hart; Robert Nichols, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Arnold Punaro, assistant to Senator Nunn; Greg Pallas, assistant to Senator Exon; Peter Lennon, assistant to Senator Levin; and Faisal Keblawi, assistant to Senator Thurmond.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The committee will come to order.

The committee meets this morning to receive testimony on the fiscal year 1983 Army budget. We have with us this morning the Honorable Jack Marsh, Secretary of the Army, and the Army's Chief of Staff, General Meyer.

In the past several years budget constraints and higher defense priorities have prevented the Army from realizing the full poten-

tial inherent in its current force structure. Given the magnitude of the proposed budget increases, our outstanding conventional force requirements will still present a serious management challenge to the Army's leadership over the next several years, forcing compromises and tradeoffs among various programs.

Several key areas will be of interest as we consider the effect of defense budget increases on the Army. First, and likely for this year foremost, the pace and direction of the Army's modernization program, plagued with difficulties but critical to the health of our ground forces' capability; second, the status of the Army's military manpower situation which was the focus of intensive congressional review for the last 3 years; and third, and finally, the adequacy of civilian manpower levels which was the Army's highest priority in fiscal year 1982.

These three areas will be central to our analysis of administration efforts to man, equip, train, and sustain ground forces through the 1980's. We will continue to seek a proper balance between cost of this effort and the necessity to meet expanding and geographically dispersed conventional threats.

Before turning to Secretary Marsh, I would like to make the committee aware that the Secretary of the Army, as mandated by the Nunn amendment, notified this committee in a letter dated Monday, February 8, that five Army programs have exceeded a baseline unit cost by more than 25 percent.

These programs are Roland, Hellfire, Patriot, and the Pershing II missile systems, and the AH-64 attack helicopter.

Each of you should have before you a copy of this letter, as well as similar letters from the other two Services. These letters were submitted in response to a provision sponsored by Senator Nunn and contained in the fiscal year 1982 Authorization Act.

This provision requires, among other things, the Service Secretary to report to Congress within a specified period whenever he determines that a program will or already has exceeded certain cost thresholds.

[The letters follow:]

SECRETARY OF THE ARMY,
Washington, D.C., February 8, 1982.

Hon. JOHN G. TOWER,
Chairman, Committee on Armed Services,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Section 917 of the fiscal year 1982 Defense Authorization Act, Public Law 97-86, requires Unit Cost Reports on selected Major Defense Weapon Systems. In accordance with those requirements, I have this day determined that the following systems have exceeded a baseline unit cost by more than 25 percent.

Roland: This system has exceeded the program acquisition unit cost baseline by more than 25 percent. However, there are special circumstances attendant to this breach inasmuch as it was caused by program termination. Development and initial procurement costs have already been incurred. These sunk costs, along with additional termination costs, are amortized over the reduced quantity now being procured.

Hellfire: This system has exceeded the current procurement unit cost baseline by more than 25 percent. This unit cost growth is primarily attributed to a reduction of fiscal year 1982 procurement funds. The Army chose to reduce the number of missiles to be procured in fiscal year 1982 while fully funding production facilitization thus causing costs to be apportioned over a smaller missile quantity. Hellfire program acquisition unit cost has decreased.

Patriot: This system has exceeded the program acquisition unit cost baseline by more than 25 percent. The increase in program acquisition unit cost is primarily attributed to the long-planned purchase of additional launchers and missiles. The Congress was advised of these plans during the past two years. Army maintenance programs have also been increased.

Pershing II: This sytem has exceeded both program acquisition and current procurement unit cost baselines by more than 25 percent. This unit cost growth is primarily attributed to contractor and Army underestimation of manufacturing complexity; and inflation.

AH-64 Apache (AAH): This system has exceeded both program acquisition and current procurement unit cost baselines by more than 25 percent. This unit cost growth is primarily attributed to contractor and Army underestimation of manufacturing costs; additional requirements for spares and training equipment; and inflation.

The reporting requirements under the provisions of Section 917 will be adhered to for these systems. My reports will be submitted to you within 30 days.

I have sent similar letters to the President of the Senate, the Speaker of the House, and the Chairman of the House Armed Services Committee.

Sincerely,

JOHN O. MARSH, Jr.

THE SECRETARY OF THE NAVY,
Washington, D.C., February 8, 1982.

Hon. JOHN G. TOWER,
Chairman, Committee on Armed Services,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Section 917 of the fiscal year 1982 Defense Authorization Act, Public Law 97-86, requires Unit Cost Reports on selected Major Defense Weapon Systems. In accordance with those requirements, I have this day determined that the systems listed in the enclosure have exceeded a baseline unit cost by more than 15 percent, including the impact of several years' projected inflation. I have also included cost growth in constant dollars to provide a more accurate representation of the status. Only two of these systems would have been listed had the threshold requirements been stated in constant dollars.

As required by law, the baseline used for determining the unit cost increases is the March 31, 1981 Selected Acquisition Report (SAR). The March SAR included the Reagan Amendment for fiscal years 1982 and 1983 only, and did not incorporate outyear program adjustments. The fiscal year 1983 Defense Budget includes the first total Reagan program, and as such, reflects the total weapon system quantities not in the March SAR. The systems reported to me reflected costs and quantities as shown in the fiscal year 1983 Defense Budget, and as such, half of the unit cost increases over 15 percent are due to quantity additions in the outyears. As a result, the use of escalated dollars vastly overstates unit cost increases by including the impact of inflation compounded over many years. The number of systems reported is the product of these basic flaws in the process.

The reporting requirements under the provisions of Section 917 will be adhered to for these systems. My reports will be submitted to you within 30 days.

I have sent similar letters to the President of the Senate, the Speaker of the House, and the Chairman of the House Armed Services Committee.

Sincerely,

JAMES F. GOODRICH.

Enclosure.

DEPARTMENT OF THE NAVY PROGRAMS

The following Navy programs have breached their program acquisition unit cost baselines by more than 15 percent:

FFG-7 Guided Missile Frigate: This increase is due to the addition of 9 LAMPS MK III capable ships in the outyears and associated inflation (constant dollar change +3.5 percent).

PHOENIX (AIM-54A/C): This increase is due to the addition of 1,302 missiles in the outyears and related inflation, offset by production efficiencies (constant dollar change −9.7 percent).

The following Navy program has breached its fiscal year 1982 procurement unit cost baseline by more than 15 percent:

SSN-688 Class Submarine: This increase is due to the additional advance procurement funding and extended fiscal year 1977 funds authorized by the Congress, which artificially inflated the fiscal year 1982 column. Subtracting these costs results in a procurement unit cost increase of only 0.8 percent.

The following Navy programs have breached their program acquisition unit cost baselines by more than 25 percent:

SSN-688 Class Submarine: This increase is due to the addition of 12 ships in the outyears, related inflation, and the addition of the Vertical Launch System (VLS) (constant dollar change +2.1 percent).

F-14A TOMCAT: This increase is due to the addition of 336 aircraft in the outyears, related inflation, and an improved radar (constant dollar change −1.9 percent).

SPARROW (AIM/RIM-7M): This increase is a result of a program restructuring dictated by difficulties encountered in transitioning from development to full production (constant dollar change +21.2 percent).

TRIDENT I (C-4) Missile: This increase is due to the reduction of 309 missiles from the program as a result of the decision to develop a follow-on TRIDENT II (D-5) missile.

5-Inch Guided Projectile: This system has been cancelled by the Secretary of the Navy. The total quantity in the baseline was 18,441 projectiles. All that remain are the 141 prototypes, which have to absorb all the sunk costs.

The following Navy programs have breached their fiscal year 1982 procurement unit cost baselines by more than 25 percent:

SPARROW (AIR/RIM-7M): This increase is due to the Congressional cut of 320 missiles.

SIDEWINDER (AIM-9M): This increase is due to the procurement deferral of 210 missiles until fiscal year 1983, as noted in the March 1981 baseline SAR. (Actual change +2.8 percent).

DEPARTMENT OF THE AIR FORCE,
Washington, D.C., February 8, 1982.

Hon. JOHN G. TOWER,
Chairman, Committee on Armed Services,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Section 917 of the fiscal year 1982 Defense Authorization Act, Public Law 97-86, requires Unit Cost Reports on selected Major Defense Weapon Systems. In accordance with those requirements, I have this day determined the following systems have exceeded their baseline unit costs by more than 15 percent:

Maverick: This system has exceeded the total program acquisition unit cost by more than 15 percent. The increase is due primarily to changes in guidance section estimates, inflation estimates and design changes required in research and development.

F-15: This system has exceeded the total program acquisition unit cost by more than 25 percent. The increase is due primarily to additional aircraft for the program and their required support equipment in the outyears.

F-16: This system has exceeded the total program acquisition unit cost by more than 25 percent. This increase is primarily due to the development and procurement costs for additional aircraft and their support equipment, including costs for configuration changes and the inflation impact of procuring these aircraft in the fiscal years 1986-91 time frame.

AIM-7M: This system has exceeded both total program acquisition and current procurement unit costs by more than 25 percent. The U.S. Navy is executive agent for this program and is providing a separate report.

A-10: This system has exceeded the current procurement unit cost by more than 25 percent. The increased unit cost is due primarily to the change in the planned fiscal year 1982 aircraft procurement, which has been reduced from 60 to 20 aircraft.

Defense Satellite Communication System (DSCS): This system has exceeded the total program acquisition unit cost by more than 25 percent. The cost increase is primarily due to increases in the program office estimate of labor, materials and subcontractor costs. Additional changes were caused by schedule delay, and associated inflation. The current estimate is based on firm contractor proposals.

The reporting requirements under the provisions of Section 917 will be adhered to for systems exceeding their baseline unit costs by more than 15 or 25 percent. My reports will be submitted to you within 30 days.

I have sent similar letters to the President of the Senate, the Speaker of the House, and the Chairman of the House Armed Services Committee.

Sincerely,

VERNE ORR,
Secretary of the Air Force.

SUMMARY OF NUNN UNIT COST REPORT PROVISION

1. Purpose of Provision.—To compel the military program manager to notify his Service Secretary who in turn will notify Congress whenever the cost of the major defense system has increased by more than 15 percent over the cost as reported in the Selected Acquisition Report ("SAR") dated March 31, 1981.

2. Application.—This provision applies to those major defense systems which were included in the SAR dated March 31, 1981, and to those systems for which funds were authorized in the fiscal year 1982 DOD Authorization Act.

3. Two Situations Which Require Reports to Congress.—

A. 15 PERCENT COST INCREASE

If at any time the responsible military program manager has "reasonable cause to believe" that the cost of the defense system for which he has responsibility has increased by more than 15 percent (including inflation), he must immediately submit a report to his Service Secretary. Once the Secretary has determined for himself that the cost of such major defense system has indeed increased by more than 15 percent, he may not obligate any additional funds, unless within 30 days of making such determination; he submits to Congress a report which includes the following:

(1) Statement of the reasons for such cost increases;

(2) The identities of the military and civilian officers responsible for the program management and cost control;

(3) Action taken and proposed to be taken to control future cost growth;

(4) Changes in performance or scheduled milestones which have contributed to cost growth;

(5) Identities of principal contractors; and

(6) Index of all testimony/documents provided to Congress on estimated costs of such system.

B. 25 PERCENT COST INCREASE

If the Service Secretary determines that the cost of a major defense system has increased by more than 25 percent (including inflation), he may not obligate any additional funds unless within 60 days of making such determination, the Secretary of Defense certifies to Congress that—

(1) Such system is essential to national security;

(2) There are no alternative systems which will provide equal or greater military capability at less cost;

(3) The new cost estimates are reasonable;

(4) The current management structure for such system is "adequate to manage and control" costs.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States, Washington, D.C.

DEAR MR. BOWSHER: As you are aware, the Department of Defense Authorization Act, 1982 (Public Law 97-86) requires, among other things, that the Secretary of Defense notify the Congress in writing when the unit cost for any major defense system identified in the March 31, 1981 Selected Acquisition Reports exceeds certain cost thresholds. It is essential that the report provided by the Secretary be complete, current, and accurate to permit sound decisions and judgments by the Congress. I am particularly interested in assuring that the data derived from the Selected Acquisition Reports is such that the Committee can place high confidence in its quality. The importance of valid cost data has been stressed by both the Congress and your office for many years. Therefore, in general and as part of a longterm study, it is requested that a review be initiated to suggest improvements, if any, that might

be made to the unit cost reports and to the Selected Acquisition Reporting system itself.

More specifically, and in a relatively shorter term, I am requesting that the General Accounting Office, as a matter of priority, examine all reports when they are submitted by the Secretary of Defense in compliance with the above law and report to this Committee on the validity of the cost data provided therein. It is also requested that your office inquire into the problems which may arise and which preclude the timely and accurate reporting of such data by the Secretary.

Because of this Committee's schedule of hearings on the Department of Defense fiscal year 1983 budget request, we must have your assessments as soon as possible. I will leave it to our respective staffs to arrange a mutually agreeable approach and time frame for satisfying this request.

I appreciate the assistance your office has provided this Committee and look forward to your continued support.

Sincerely,

JOHN TOWER.

Chairman TOWER. It is my understanding that each of the Services will provide the committee a complete report on these programs within the 30 days required by the Authorization Act.

I would also like to make the committee aware that by letters dated February 5 to the Comptroller General I have requested the General Accounting Office to assist us in evaluating each of these unit cost reports as they are received.

[The letters follow:]

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States, Washington, D.C.

DEAR MR. BOWSHER: As you are aware, the Department of Defense Authorization Act, 1982 (Public Law 97-86) requires, among other things, that the Secretary of Defense notify the Congress in writing when the unit cost for any major defense system identified in the March 31, 1981 Selected Acquisition Reports exceeds certain cost thresholds. It is essential that the report provided by the secretary be complete, current, and accurate to permit sound decisions and judgments by the Congress. I am particularly interested in assuring that the data derived from the Selected Acquisition Reports is such that the Committee can place high confidence in its quality. The importance of valid cost data has been stressed by both the Congress and your office for many years. Therefore, in general and as part of a longterm study, it is requested that a review be initiated to suggest improvements, if any, that might be made to the unit cost reports and to the selected Acquisition Reporting system itself.

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I appreciate the assistance your office has provided this Committee and look forward to your continued support.

Sincerely,

JOHN TOWER.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1981.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States, Washington, D.C.

DEAR MR. BOWSHER: I am writing to request the assistance of your office in evaluating the efforts of the Department of Defense to achieve maximum economies and efficiencies in its operations.

This Committee is quite concerned that the Department of Defense budget be as free of waste and inefficiencies as is possible. In responding to our concern in this matter, the Deputy Secretary of Defense has informed us that DOD has reduced proposed defense outlays for fiscal year 1983 by more than $5 billion and obligational authority for fiscal years 1982 through 1987 by $48.2 billion, based on cost avoidance, economies, and efficiencies.

I believe it would be helpful to this Committee and to the Congress if the General Accounting Office would verify the reasonableness and accuracy of these estimated economies and determine if there is an adequate system in place to track the actual savings as they occur.

The Committee will need a detailed briefing on the reasonableness of the fiscal year 1983 projected savings well before reporting out the authorization bill, which we plan to do by April 1, 1982. After reviewing the briefing, we can then proceed to consider follow-up measures.

Sincerely,

JOHN TOWER.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States, Washington, D.C.

DEAR MR. BOWSHER: I am writing to request the assistance of your office in evaluating the efforts of the Department of Defense to achieve maximum economies and efficiencies in the procurement areas. Specifically, the Department plans to request approval for a number of multi-year procurements in the fiscal year 1983 budget.

The Committee is concerned with the review of several defense programs proposed for multi-year procurement in fiscal year 1983. As a prerequisite to approval, the Committee will want to be assured that such multi-year procurement proposals satisfy the criteria set forth in the reports accompanying the fiscal year 1982 DOD Authorization Act as well as the DOD Appropriations Act and that they provide the level of savings, economy, and efficiency which DOD has projected.

It would be helpful to this Committee and to the Congress if the General Accounting Office would verify both that the Department of Defense, in selecting these programs, has complied with such criteria and that the projected economies are achieveable. It would also be helpful to determine if the Department has in existence a satisfactory system for identifying the best candidates for multi-year procurements.

The Committee will need a detailed briefing in mid-March on the reasonableness of each of the fiscal year 1983 proposals for multi-year procurements prior to reporting out the DOD Authorization Bill, which we plan to do by April 1, 1982. This briefing may be followed with a subsequently issued report.

Sincerely,

JOHN TOWER.

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., February 5, 1982.

Hon. CHARLES A. BOWSHER,
Comptroller General of the United States, Washington, D.C.

DEAR MR. BOWSHER: As you may know, the Department of Defense seeks in its fiscal year 1983 authorization request to fully fund two nuclear aircraft carriers, CVN-72 and CVN-73. This funding approach is considerably different from the manner in which DOD has historically procured aircraft carriers. Their original plan for these two ships was to seek long-lead funding for CVN-72 in fiscal year 1983 with the balance to be funded in fiscal year 1984 and long-lead funding for

CVN-73 in fiscal year 1985 with the balance to be funded in fiscal year 1986, essentially procuring these ships one at a time. DOD now believes that it can achieve cost saving or cost avoidance of $753 million if Congress agrees to fund both nuclear aircraft carries in fiscal year 1983. In addition, the Navy asserts that this funding approach will result in a delivery date for each such carrier which will be two years earlier than would be possible if the carriers were procured as they have been in the past.

I applaud the genuine efforts of Secretary Weinberger to achieve cost savings or avoidance at every opportunity. However, the Committee must be persuaded that such cost savings or cost avoidance and accelerated delivery schedule, when compared to the original plan envisaged for fiscal year 1983, are, in fact, achievable. To assist the Committee in asking this assessment, it is requested that the General Accounting Office undertake, as a matter of priority, a review to determine whether fully funding two CVN's in fiscal year 1983 will indeed result in a cost avoidance of $753 million and the accelerated delivery schedule projected by DOD.

In anticipation of using this information in Committee hearings as well as throughout this session, the results of your review must be reported in writing to the Committee not later than April 1, 1982. In addition, I would like for you to make your staff available to meet with the staff of the Committee on Armed Services prior to February 15, 1982, to discuss this matter in as much detail as possible.

Sincerely,

JOHN TOWER.

Chairman TOWER. I regard this hearing as enormously important. We fund our sophisticated systems for the Army, Navy, and Air Force, and in the final analysis our ability to maintain the American presence to defend our interests at home and abroad, depends on our ability to substain a foot soldier on a piece of real estate somewhere in the world where we have an interest.

We can take great pride in the professional Army that we have, but it must be of some concern that although we have accepted an asymmetry of force between the ground forces of the Soviet Union and the United States, we certainly cannot permit those enormous Soviet ground forces to enjoy a significant qualitative advantage over the United States Army in terms of the equipment that they have to fight with.

This is an important hearing. What we do in terms of modernization of our Army could conceivably be one of the most important things that we will consider this year.

Secretary Marsh, if you are prepared to do so, I am certain that the committee would appreciate at some point during your testimony today any preliminary comments that you would feel might be appropriate with respect to the programs listed in your February 8 letter to the committee.

Before you start, I would like to publicly thank General Maloney for taking the time and the effort to brief our staff on the Army's unit cost report. It has been very useful to us.

Secretary Marsh, the posture statement of the Army, a joint statement titled "An Army Befitting A Great Nation", by you and General Meyer, will be made a part of the hearing record, following your testimony today. Your prepared statement will be submitted in its entirety for the record, and we will be delighted to hear from you and General Meyer before we go to questions.

[See: An Army Befitting A Great Nation, joint statement by Hon. John O. Marsh, Jr., and Gen. Edward C. Meyer, p. 878.]

STATEMENT OF HON. JOHN C. MARSH, JR., SECRETARY OF THE ARMY

Secretary MARSH. Thank you, Mr. Chairman.

It is a pleasure to appear again before you and members of the committee.

At this time I would like to thank you, personally, and the individual members of the committee, for the tremendous help and support that they have given the U.S. Army in the past year. I would also thank you for the advice and counsel that you have given to me as the Secretary of the Army. During my first year in office I have also had tremendous support from the Chief of Staff and members of the General Staff of the U.S. Army. They have made my job much easier.

Following the guidance of the Chair, I will make some oral comments from my statement and file my statement for the record.

The first point I would make is that I would perceive my role and job and responsibility as being principally that of managing the Army. One of the principal thrusts of that effort is the wise management of the taxpayers' dollars and those sums that are appropriated to us by the Congress of the United States. In that regard, we have submitted to you, pursuant to the public law, five weapon systems that exceed the 25-percent threshold that has been imposed by statute. They are: Roland, Patriot, Pershing II, Hellfire, and the attack helicopter, sometimes called the Apache.

RESOURCE MANAGEMENT

The fact that there are five such systems that have been reported to you, I think, confirms the need and the necessity for a continued emphasis upon better management of resources in the Department of the Army. It is true that there have been mistakes in the past and, unfortunately, I suspect there will be mistakes in the future. But I pledge to you that by my own efforts we will do all that we can—and I know that I make this statement on behalf of General Meyer, all those in the uniformed services, in the civilian components, in the Active Forces, the Reserve, and the Guard—that we will seek to manage our resources in a way that serves the national interest.

You made reference, Senator, in your opening statement to the grave times in which we live. The posture statement which we have submitted bears moot testimony to that.

I would particularly call the committee's attention to the comments of General Meyer in his opening statement. I believe that they give a very accurate, panoramic view of the troubled times in which we live. I also think they accurately state the threat we face, the requirements that must be recognized, and the forces that must be mustered in order for this country to have the type of defense it needs in the environment in which we live.

I would like to mention to the committee in this regard that a year ago when I was here, I pointed out my concern about the National Guard and the Army Reserve. I did this in order to focus attention upon a matter of national policy known as the total force concept. I believe you will see that in the past year there has been

an increased emphasis on these two very critical areas of our Army force structure.

If you were to look at the task that confronts us, I would say our major priority is readiness, and in readiness you will find three very significant components: One is manning, one is modernization, and the other is mobilization.

MANNING, MODERNIZATION, MOBILIZATION

In reference to manning, we have achieved some very significant successes, we believe, in the past year in the fields of recruiting and retention; and not simply in the Active Army, but also in the National Guard, and in the Reserve. We believe this success relates not only to the area of quantity, but to areas that also relate to quality.

In this regard, I would mention to you that in the coming year we will emphasize before your committee the need for a noncontributory educational assistance bill, better known as the GI bill, in order to attract the college-bound youth.

In the field of modernization you will find that the Army is moving into one of the most significant periods in its national history from the standpoint of the number of weapon systems that are being introduced, and from the resulting changes that will occur in doctrine and in organization.

Mobilization is an area that must concern you as much as it does us. I would point out to you there is a shortage in the pretrained manpower pool referred to as the Individual Ready Reserve, or IRR. Some progress has been made, but not enough. Consistent with this discussion of mobilization, I would direct your attention to the need to develop our industrial base in order that we can be more responsive industrially in the event of mobilization.

The Army's mission is to deter aggression. We believe that we have been successful in being able to do that, but this continues to be our principal effort.

Now, you mentioned to me the questions that relate to costs and cost control. When I finish this summary of my statement, I would like to speak to that and indicate to you some of the things that we have done.

Before doing that, I think the committee would be interested to know that the Army has started, under the direction of the Chief of Staff and with my support and assistance, a very affirmative physical fitness program.

This program is based on the theme that the readiness of the U.S. Army begins with the physical fitness of the soldiers and noncommissioned officers and officers who lead them. This applies not only to the Active component, but to the Guard and the Reserve as well. There will be some problems in many of the Reserve components, but these are the areas we are addressing.

You will see in the posture statement and in our budget request a continued emphasis on the buildup of our conventional forces. These improvements also include a buildup of our special operations forces, our Special Forces, our airborne, our Rangers, and other units of that type that fall into this category. As General Meyer's statement will point out, you will see an Army that will

begin to concentrate on being light, mobile, deployable, hard-hitting, and relying heavily on communications.

COST AWARENESS

Now, in reference to cost, let me say to you that having served as the Secretary of the Army for a year—and based on my own previous Federal service—I am convinced that the answer to many of our problems that relate to cost begins with awareness: an awareness that there are finite limits to our resources that are available to be spent; an awareness that begins with the Secretary of the Army and extends down to the most junior civilian; and an awareness that begins with the Chief of Staff of the Army and extends down to the basic soldier.

I can say to you that your senior leadership in the Army and in the Secretariat are aware of these cost problems and wrestle with them every day; however, it will be our task to see that this awareness of cost also goes to the lowest levels of the U.S. Army.

Several things are happening to achieve that end. You can already see an emphasis in the Department of Defense in the Carlucci Initiatives. There are some 32 management initiatives which the Army is seeking to implement—some of which have already been implemented.

You will find in the office of the Under Secretary of the Army an individual who has a charter to address costs. Mr. Ambrose, who is the Under Secretary of the Army, comes to us with a very distinguished career in industry and a very long and extensive background in defense production. He already has found that there are some very significant areas to which our attention should be directed.

For example, we know that a critical area in weapon systems cost escalation invariably occurs at the transition point between development and production. That is an area that will receive very significant attention.

Another area to be addressed is the field of contracts. Our contract forms and proposals need to be reviewed, particularly those that relate to inflation and computing costs.

We also are overlooking the fact that time in itself is a factor of cost. We are taking an inordinate period of time in order to bring weapon systems into production and into the field. As a result of those extensive periods of time, we are finding an escalation of cost occurs—for a number of reasons—but the principal reason, of course, is the problem of inflation.

The Under Secretary of the Army is beginning a program that will address inflation as an area that needs to be managed as you would manage other costs. You simply don't compute the cost of the product and then estimate inflation for a period of years and add it on to those costs.

Additionally, this year the Vice Chief of Staff of the Army has begun a very extensive review of cost procedures. This effort has come into confluence with a second effort that was started at my request and direction called the Cost Discipline Committee.

I suspect you may have received literature in reference to this. We have brought in five individuals who have initimate knowledge

of defense contracting to look at the Army and see what areas need our attention and what are some of the things that we are doing wrong. Three of these people came from very high positions in the American defense industry, one with a distinguished background in the uniformed services, now retired, and one who had been in the Federal system as a civilian appointee.

The Cost Discipline Committee made a number of recommendations to us. These have been filed in the form of a report, and several are in the process of being initiated.

In addition to these types of studies, the Chief of Staff of the Army issued a directive about a year ago for a policy that would vigorously pursue matters that relate to fraud, waste, and abuse. This is an effort that I endorse. We think that we are seeing results occurring as a result of this. We are trying to coordinate our audit agency, our inspectors general, and our criminal investigation command, in such a way that they can address these questions of cost.

I am sure that there will be other questions that you will want to ask me in reference to this and these programs. We seek your counsel and advice in implementing these programs. We ask for your suggestions. We will be happy to meet with you personally and brief you at any time.

It is a pleasure to be here and we thank you for your continued interest in the Army and in the national defense of our country.

Chairman TOWER. Thank you, Mr. Secretary.

[The prepared statement of Secretary Marsh follows:]

PREPARED STATEMENT BY HON. JOHN O. MARSH, JR.

Mr. Chairman, members of the committee: It is a pleasure to appear before you for the purpose of discussing the posture of the Army and the Army budget request for fiscal year 1983. As I stated before this committee a year ago, I welcome the opportunity to work with you to develop a total Army capable of successfully defending our national interests.

My principal responsibility is that of managing the Army. It is vital that we manage our dollars wisely. In that regard, my major task is to take the resources that Congress provides and to use them in the way that gives this Nation the best Army possible. There have been mistakes in the past that relate to our management decisions—and there will undoubtedly be mistakes in the future. But I pledge to you that I will do all I can to ensure that all of us in the Army—uniformed and civilian—Active, Reserve, and Guard—will do our utmost to serve the national interest.

I call to the attention of the committee the international situation discussed in the fiscal year 1983 Army Posture Statement and the grave times in which we live. I stated last year, too, that there are matters that, from my perspective, need your immediate and continuing support. We've made progress in many areas. For example, when I appeared before you last year, I stated my intention to place special emphasis on the Army National Guard and U.S. Army Reserve. You will see the results of this emphasis in the current and coming years.

Still, much remains to be done. There are certain priorities to be addressed. These priorities relate to readiness, and to improve readiness we need to focus on three areas: manning, modernizing, and mobilizing. In addressing these areas of concern, a major consideration is cost, which I will mention further in this statement.

In regard to manning, we have had notable success in recent years, As with everything we do in the Army, we must think of the Total Army—that is the Active Component, the Army National Guard, the U.S. Army Reserve, and the civilian workforce, which is an integral part of each of the three uniformed elements. The Army is the Total Army, but we emphasize the importance of all components by using the modifier "Total."

The Total Army met its recruitment and retention goals in the past year. Quality and quantities increased, but several areas need continued attention: We need a non-contributory educational benefits program to attract college-bound youth. We

need to increase our pretrained manpower pool, and we need continued attention to the quality of life issues that will ensure that our soldiers are appropriately compensated for their service and sacrifice.

In the area of modernization, we are entering one of the busiest periods of innovation and change in our peacetime history. Our doctrine is changing, new items of equipment are being introduced, organizations are changing to keep up with new doctrine and equipment, and our facilities continue to deteriorate as a result of the combined effects of age and innovation. Funds requested in our fiscal year 1983 budget are essential to the continuation of our modernization efforts.

The next area that I highlight is that of mobilization. I've touched on the shortages in our pretrained manpower pool. We also need to improve this Nation's industrial responsiveness, the Army's ability to mobilize efficiently and to deploy rapidly, and the level of prepositioned stocks that must sustain us through the early days of any potential conflict.

Army efforts in the past year benefited the Nation in many ways. We are proud that deterrence, the first mission of our armed forces, has prevailed. Our efforts and ambitions focus on the continued fulfillment of this prime task.

A second major effort involves cost control and cost discipline. We have changed policies and procedures that affect cost, and auditable cost savings and cost avoidance figures are increasing. More importantly, new attitudes are developing. The collective energy of leaders throughout the Total Army is focusing on the more efficient use of our public resources. We recognize that much more has to be done in this area. It is essential that each of us develop a sense of cost consciousness.

One final item is worthy of mention and that is our increased attention to physical fitness. The readiness of the United States Army begins with the physical fitness of the individual soldier and the noncommissioned officers and officers who lead them. We are heirs of high standards that our predecessors established and sustained in peace and war. We will not forget this proud heritage that is in our charge today.

In the coming year, we will see a continuing interest in strengthening conventional force capabilities of the United States Army.

At the same time, emphasis will be placed on special operations forces, Ranger and airborne units, and on our Special Forces in order to improve capabilities in the area of unconventional warfare. In the conventional units, you will see greater emphasis on light, mobile, deployable, hard-hitting units that rely heavily on communications.

I particularly call to your attention the remarks of General Meyer who follows me. He will set out the direction our Army is taking and should take in the years ahead. I support him in this endeavor and know you will consider carefully the views he will present.

The tasks that face us are complex. The threats to our national interests are real. But it is with great confidence that we look ahead to meeting any challenge that threatens our vital national interests.

We personally welcome the opportunity, and I speak for the Total Army, to continue to work closely with the 97th Congress to insure the continued greatness of this Nation and its people, whom you represent and we serve.

Chairman TOWER. General Meyer?

STATEMENT OF GEN. EDWARD C. MEYER, CHIEF OF STAFF, U.S. ARMY

General MEYER. I would like to ask that my statement be entered into the record.

Chairman TOWER. Your statement will be entered in full in the record.

General MEYER. In the statement I prepared I tried to lay out clearly for each of you the purpose of the land forces and the reason that we have the Army designed and headed in the direction that we are heading it. I think you need to look at it in that context because each one of you, either on the subcommittees you work with or in the total committee here, get focused on a specific functional area or a small piece of the Army without taking a look

at the overview of what it is we are trying to do. I hope that this statement will put that into perspective.

The basic question that I believe I answer in that statement is the kind of Army that we believe we need to develop in the critical period ahead that will assist in all of the factors that we have as far as the defense of our Nation is concerned. I focus this on four essential characteristics.

One is that the forces have to be flexible; they have to be able to respond across the whole spectrum of warfare and be flexible enough to be used in Europe as well as in other areas of the world.

Second, our forces have to be technologically capable. We can't afford to send soldiers off to war with equipment that is not as good as the enemy's. That is something that has to be done. We don't decide how good the weapons are; that has to be decided by the threat.

Third, our forces have to be more strategically deployable, quickly responsive. We have to be tactically and doctrinally sound for both current wars and future wars, and be able to bridge that gap.

That is the thrust of the characteristics of the Army we are developing. We think it is responsive to each of those essential characteristics.

I just have to tell you that I, personally, believe that we are moving more slowly than I think is necessary. I just believe we are going too slowly, but this budget provides steps toward a quality Army.

The second—and I had to make a decision when everyone else was coming in for additions to their forces and so on as to whether or not we would try to add force structure, additional divisions which are clearly needed if you look at the totality of the Soviet force, or whether we would try to improve the quality of the Army we have and build the base.

We chose to focus on quality—quality of people, quality of training, quality of equipment, and quality of maintenance—so that we are able to have the kind of quality Army we need both in the Active, the National Guard, the Army Reserve, and among our civilian manpower force.

We have delayed enlarging the Army. We do intend in the late years, in the late mid-1980's, to add two National Guard divisions, but we recognize the challenge that you have outlined.

The pace and direction of modernization and the manpower situation, the adequacy of our civilian manpower, are critical to the challenges that we have ahead.

Your committee has been a vital partner in the development of the Army today, and we hope that you are going to be a vital partner in the development of the Army of tomorrow. So, we thank you for the opportunity to meet and be with you this morning.

[The prepared statement of General Meyer follows:]

PREPARED STATEMENT BY GEN. EDWARD C. MEYER, CHIEF OF STAFF, U.S. ARMY

Mr. Chairman, members of the committee, once again it is my responsibility to assist in your deliberations on the vital issue of national defense.

As the Secretary has made clear, the Department of the Army recognizes the full obligation incumbent on it as the custodian of the nation's land power. In that light, we believe that urgent need exists to shore up or improve significant aspects of this

nation's land forces so that the Army can fulfill its statutory charge to prepare for "prompt and sustained land combat."

Simultaneously, we understand—and the critical nature of this has been made manifest throughout all commands of the Army—that we must continue to do all that is within our power to ensure that hard-earned tax monies are expended prudently and for the purpose authorized and appropriated.

There are many who envision a future security posture devoid of a central role for land forces; or articulate a land force markedly different from that which Secretary Marsh and I espouse. Others seek economy through the gutting or major modification of one or another narrowly defined components of our structure, jeopardizing the synergistic effect of the whole complex machinery which is an Army. This complexity was recognized by our first Commander-in-Chief, whose birthday we celebrate shortly:

"An Army is in many respects a machine; of which the displacement of any of the organs, if permitted to continue, injures its symmetry and energy and leads to disorder and weakness."

It is my professional view that what we seek in this budget is rational, that it has direction and that it is well conceived. It is the minimal requirement which, if funded with a degree of predictable constancy over the years ahead, will serve the nation well in what I foresee as a period of increased global lawlessness.

The international lawbreaker is the adversary who, by hostile action or threat, jeopardized our sovereignty or our vital interests. Our national response must include air, land, and sea elements which can police our commercial routes and secure vital choke points, which can put vast areas of the globe under surveillance, and which, in an emergency, can deliver weapons or create a presence rapidly at any spot on earth. But I caution that if we are not prepared and predisposed to back our words with the physical presence of significant land forces—which by their nature are symbols of a less-than-transient commitment—then we send signals which imply that we are not seriously interested in protecting either our own interests or the welfare of allied communities throughout the world.

What is the concept underlying the creation of our land force?

There is a prevalent shibboleth which depicts our tactical philosophy as skewed to attrition warfare. That seriously misrepresents the case. The land mobility inherent in our new family of weapons—the Abrams tank, the Bradley Infantry Fighting Vehicle, the Black Hawk and the Apache—is in no way indicative of a throwback to a Maginot-Line mentality. A land force, like ours, with serious numerical deficiencies cannot adopt attrition as its governing philosophy. On the other hand, any presumption that a philosolphy of maneuver will, of itself, compensate for unattended deficiencies, is equally fallacious.

The 1973 Middle East war, the so-called Yom Kippur War, is often depicted as a classic in maneuver warfare. Yet not since the 1943 Battle of Kursk has a comparable loss of tanks occurred in such a short period of time. If the loss rate experienced in 1973 were extrapolated to the Central European battlefield of tomorrow, the resulting losses would reach levels which the U.S. Army is not prepared to accept. We must orient on maneuver and the advantages it can bestow. However, one of the foremost practitioners of maneuver, Field Marshal Erwin Rommel, acknowledged that "in motorized warfare, materiel attrition and the destruction of the organic cohesion of the opposing Army must be the immediate aim of all planning." This confirms my judgment that attrition and maneuver are copartners at the tactical level.

I suggest that the new edition of FM 100-5, our basic tactics document, and the conceptual framework of Air-Land Battle 2000 more truly reflect the current mental preparation of our leadership for battle. It is my belief that we are and have been in a period of evolutionary military thinking that would be applauded by the foremost military tacticians and strategists of history.

What kind of a land force will result?

I don't mind telling you I do get a lot of external advice on this subject—"General, you should seek a smaller, more technical force; a larger, cheaper force; a smaller cheaper force," and on and on. Some even suggest I should "Give it to the Marines!"

Well, let me say that the potential scenarios I see could easily consume the total of both Army and Marine capabilities—with room to spare. I believe General Barrow shares my view that such competition has no merit.

So what shall we look like?

Some would model us on the Germans, on the Israelis—superb mechanized forces, indeed—optimized to a single mission and operating on their home turf. The Norwegians are another superb example of a rapidly expandable Army designed for their unique circumstances.

Unfortunately, our challenge is not so precisely definable. Our commitments are broader, linked to issues and agreements which are global in scope. The geographic and climatic conditions we may have to face are diverse, encompassing mountains, jungles, deserts and plains. The threats for us are multifaceted. They could stem directly from the massive continental forces of the Soviet Union. Or from well equipped surrogate forces. Or indigenous para-military forces and terrorists. The possible locales are quite distant in most cases. In brief, these facts portray a complex problem for us, one shared by the Army of no other democracy.

The solution lies in attaining the right mix of irreducible characteristics in our force. Four come instantly to mind: flexibility, technological competence, strategic deployability and tactical soundness.

The Army must have flexible forces, readily tailored to meet one or more simultaneous events on the spectrum of conflict. We cannot afford to give up light forces, because they are ideally suited to many environments. Neither can we give up existing heavy forces because they are essential to permit us to thrust, parry, and defeat the legions of the Warsaw Pact in Central Europe—180 divisions large and 50,000 tanks strong. What we must seek, and what we do seek, is the evolution of a new force—light in weight, yet substantial in capability—the so-called high technology division which we are working on and hope to field initially in the mid-1980's. It will not eliminate the need for specifically tailored forces, but it will yield us greater flexibility.

Second, our forces must be technologically competent, able to defeat today's and tomorrow's fielded weaponry. Where it is avoidable, I do not intend to commit soldiers with weapons that will not do the job, as was the case with the bazooka we initially took to Korea. Nor do I want the kind of extemporaneous action necessitated in North Africa where we pitted towed howitzers against Panzers because our tank guns were not up to the job.

Hence, the continued infusion of new weapons remains an urgent need. The pace of modernization will be governed by considerations of cost and an eye to avoiding a situation where "block obsolescence" could jeopardize the inventory's effectiveness. But it is critical that we sustain modernization at a prudent rate over time, integrating new and highly capable weapons in a high-low mix with the older, less effective equipment. We will seek the best advantage possible in this, as we always have. Some reorganization of our existing combat elements will help us to do that.

Modernization is equalled in importance by the existence of longstanding numerical deficiences in equipment inventories. Today—right now—we are short not only adequate numbers of new weapons, but adequate numbers of weapons of any description, be they new, aged, or obsolete! That has serious implications for the validity of the Total Force concept which places heavy reliance on the ready status of the reserve forces.

My comments relative to conventional armaments apply as well to our need to remain abreast of developments in defensive and retaliatory chemical means and theater nuclear weaponry.

The third essential characteristic we seek is strategic deployability, not just for our light forces, but for the heavy elements as well. We clearly need complementary enhancements of the air and sea mobility assets of the Navy and the Air Force. It does the Nation little good to build an Army it can't deploy.

Not too many years ago I was intimately involved as a planner in the detailed examination of expeditionary force deployments to contingency areas. In those days I could, in many cases, be satisfied with relatively light and unsophisticated forces. That is not so today in as universal a sense as it once was. The massive infusion of modern weapons around the world has dramatically changed the capability of indigenous forces. The days when a major power could influence regional outcomes with a handful of Marines or a troop of cavalry dragoons in past. Today, early deploying light forces must have assurance that they can be reinforced quickly with the proper mix of light, heavy, and support forces.

In some areas the prepositioning of equipment is a sound and valid substitute for shortages in mobility assets. But this approach to improving our strategic mobility capability has economic, political and military costs, implications, and hence limitations.

Lastly, the Army we build must be tactically sound. As I discussed earlier, I believe that to be the case. Our concepts must be valid in defense as well as attack. They must be supportable, and they must place the adversary at risk.

In summary, today's Army is a formidable partner in this Nation's defense scheme. It is a well conceived Army, with rational programs and firm direction. The tone within today's Army is positive. Our units improving daily in capability; our Soldiers proud to serve. We recognize that the challenges ahead are severe. Your

committee has been a vital partner in the development of the Army of today. We believe that through our joint efforts, we can have the quality Army that this Nation needs.

EFFECT OF CONTINUING RESOLUTION

Chairman TOWER. Thank you very much, General.

What has been the effect on the Army in the past of operating under a continuing resolution, and what would be the effect on the Army's fiscal year 1983 program if you were compelled to operate at fiscal year 1982 budget levels, as I think one or two of my colleagues have suggested?

Secretary MARSH. Senator, let me take the last part of the question first. I am sure General Meyer may want to comment also.

I think the freeze you are referring to in your question would not be in the national interest. It would not be in the national interest because, unfortunately, the world situation is not going to freeze either. The deterioration we are seeing in the world scene appears to be further eroding, and I think it would be accelerated by a freeze. For these reasons I think it would not be in the national interest to do it.

The Army's budget increases from slightly over $50 billion to $60 billion. This represents such a substantial sum that a freeze of that kind, I think, would operate adversely on the Army. I would have to take a look at exactly where those types of cuts would fall to determine the magnitude of the impact.

I am confident that it would not work to our national interest to have that type of freeze.

In reference to the continuing resolution—and General Meyer may also want to speak to this—the continuing resolution of recent vintage has cost us money. It has delayed contracting, and it has delayed the beginning of starts that had been authorized. I think close to 190 contracts, have been affected, if I am not mistaken.

The sum involved in these losses, we believe, is around $30 million. It also introduces a great deal of turbulence in your management and contracting process. These results are harmful, in my view.

General MEYER. I would merely reinforce what the Secretary has said. In other words, one, we can identify at least a $30 million cost on the CRA this past year.

Second, it meant that we could not begin the production of new starts; and, third, and equally troublesome, are the bonuses and other things which are part of this program that we were not able to implement, so we lost good people in the area we are focusing on—sergeants—trying to maintain the quality of those.

We had to pass up a whole group in four months that we were not able to apply the resources to, so we had that kind of impact by the continuing resolution because of the restrictions on how we can use the money.

On the other point that you raised, as I said, we made a conscious decision in the Army from a tactical point of view and strategic point of view to make the Army better. If you were to freeze at the 1982 budget level, that Army would just not only not improve but also it would decrease in capability because the buying

power of the budget in 1982 translated to 1983 would decrease the current capability without any improvements.

Chairman TOWER. Thank you very much.

I have some additional questions, but I think I will defer to my colleagues now.

Senator Warner?

ARMY PORTION OF THE DEFENSE BUDGET

Senator WARNER. Thank you, Mr. Chairman.

Gentlemen, I appreciate your style and content this morning; it is much better than having a long statement read.

The increase in the defense budget seems, in some respects, to be weighted toward the maritime elements of our defense posture and particularly in the budget authority for the Navy and the 600-ship building program.

Traditionally, within the Department of Defense we have tried to maintain through the years a balance between the Services in terms of allocation of funds and particularly as to increases in funds.

My question to both witnessess. Are you prepared to accept this emphasis on the maritime and is it important in terms of interworkings of the Department in the budget presented to the Congress?

Secretary MARSH. In reference to the statements on the maritime emphasis, I believe the Army's portion of the defense budget this year is at about the same level percentagewise that it has enjoyed in the past. I do not perceive that the Defense discussions about maritime emphasis—much of which is mentioned in the press and is the press' perception of what might be done—are at the expense of either of the other Services.

There are some related areas of very critical Army needs that I would commend to this committee, one of which is deployability.

The Army is dependent upon the Air Force and the Navy for airlift and fast sealift deployability, and these are areas that we feel need to be addressed.

Senator WARNER. I have been handed by staff information that the percentage of change for the Navy is a 27-percent increase. That is in total obligational authority.

General Meyer, are you prepared to support that?

General MEYER. I think what the Secretary is referring to is the percent of the total budget that goes to the Army, as opposed to the percent of increase. It is down this year as compared to the past. We have been down slightly. We have been 24 to 25 percent. This year it is 23.5 percent. There has been a decrease in the percent, but it is in that neighborhood.

My concern is not so much this year in the TOA, but it is in the outyear impact. If, for example, the country does not decide to go on with a continuing large share for defense and you have already begun certain programs, they will require tails to follow them. There is only one place those tails can be achieved and that is other than in Navy programs. That is the concern that I think this committee should look at as they look at the totality of what we do.

CHEMICAL WARFARE

Senator WARNER. Turning now to the specific area which the President has sought to emphasize—and, I think, quite properly and I support the President in this effort—which relates to the biological and chemical warfare situation. The arguments range between the President's program—namely, to try to support across the board our defense needs—and to the other extreme, which is, namely, just go the protective route, as opposed to a balance between protective and retaliatory.

Will you address that, gentlemen?

General MEYER. Yes. The answer is very, very simple. The answer is that there is no way that you should permit the enemy to have the opportunity of being able to operate against us just wearing his normal uniforms and not having to wear overgarments, not having to worry about operating in a chemical scare environment as we would have to do.

The operational effectiveness of soldiers, sailors, marines, as compared to the Soviets, could be in the neighborhood of 5, 6, 7 to 1 when you look at what happens when you put on chemical overgarments and operate in a chemical environment; so, I think we should not ask soldiers to do that.

Senator WARNER. I judge you are totally supportive of the President's initiative in this area?

General MEYER. Yes, sir.

EDUCATIONAL BENEFITS

Senator WARNER. Secretary Marsh, I am very pleased to hear you this morning making reference in your statement to programs which I and other members of this committee have been encouraging for some time; namely, the need for the educational benefit package of the military.

How soon might we expect the Department of the Army or the Department of Defense to come forward with that?

Secretary MARSH. Senator, I think in the very near timeframe there will be something on this subject coming over from defense. I believe they are in the final stages of putting a bill together. They have been working very hard on this under Dr. Korb. I probably should check on the matter and get you more precise information, but I am of the view that they are in the final stages of preparing that proposed legislation.

Senator WARNER. Does part of the budget that was presented the other day contain a source of funding for this? Is it identifiable? Is this going to have to be a supplemental-type situation? Where are the dollars for this?

General MEYER. Senator, they have not made a decision. The current budget you have is based on the current programs which include a variety of incentive programs, among them bonuses. At the time they make a decision we will have to go out and decide whether we take the dollars out of other Army programs. It is still an issue as to whether or not the total pay for it should come from the Defense Department.

Those are some of the issues that are not resolved. If the initiative is taken this year for a bill, we may have to make adjustments

in the 1983 budget since the GI bill is not programed in the current Army budget.

Senator WARNER. It is the position of the Department of the Army that it has responsibilities in the strategic area for ballistic missile defense. I did not hear you address that subject in your statement.

Secretary MARSH. You are correct. I did not address it. The fact that I did not address it does not mean that it is not an item that is of ongoing concern. It is. A number of aspects of it are sensitive and classified, but work is going forward on this program and I think, very effectively.

Senator WARNER. So we can expect to receive in classified session further details on the Army's program?

Secretary MARSH. I would like to suggest to you, Senator, that we arrange through our congressional relations something on this for you, because I think you will find it of considerable interest.

Senator WARNER. We will have hearings in the Strategic Subcommittee shortly, and that will be high on the list.

RECRUITING AND RETENTION

I will close my questions with one asking for greater detail on your recruiting this year, how successful that has been and whether you can attribute it to the economy or the needs of some of the programs that have been initiated within the Congress and the Department of the Army in the past 2 years.

Secretary MARSH. Senator, I am going to make one comment on it, then refer you to General Meyer.

I think there are a number of factors that have come into confluence. First, I believe the statements and the position that the Chief Executive has taken in reference to the role and importance of defense and to the contribution made by those who serve their country by joining the services has been enormously helpful. The President's support of this defense budget and his statements on national defense have created a national climate that is very good.

Second, I believe there are changes in attitudes among younger people in reference to serving their country.

Third, the Congress of the United States has been very responsive with a bill that you played a key part in sponsoring that increased military pay.

What the Congress has done in reference to pay benefits and quality of life has had a very significant impact on recruiting. Of course you cannot discount the economy, for I am sure that it becomes a factor in this also. As you know, the Congress had mandated that 65 percent of our first-term enlistees would be high-school-diploma graduates. As of September 30 of last year, the Army ended up with slightly over 80 percent who were high school diploma graduates.

We arbitrarily imposed a 30-percent limitation on category IV's, ourselves. We missed that by nine-tenths of a percentage point.

In the field of retention, we also had success in meeting all of our goals for all of the different levels of noncommissioned officers that we wanted to retain.

In the coming year, on the quotas that we have set for ourselves to meet our end strength, we are tracking on those targets. We are recruiting well in excess of 65 percent high school graduates, better than 70 percent, actually.

On the category IV scores, we are well under 25 percent at this time.

So, we see a very significant step forward, I believe, in the areas of both recruiting and retention.

General Meyer may want to speak to that.

General MEYER. I will speak to one point, and that is noncommissioned officers.

The readiness of Congress to focus pay on the real problem, which was retention of middle-grade leaders last year, has had a big impact on our ability to retain the critical noncommissioned officer. Less and less do I hear, as I go out and talk to soldiers, the pay issue being the key issue that determines whether or not they are going to stay in the Army. More and more it is "Am I challenged; am I doing those kinds of things?" That puts the onus on us, on me and the leadership of the Army, to make sure we develop the kinds of motivational training, the kinds of experience that the individuals can receive to convince them that they ought to stay in the Army.

The other thing which we have done this year to improve quality is that the reenlistment standards have been raised higher than they have ever been before, because we are in a buyer's market as far as people are concerned. We raised the standards for reenlistment so that individuals have to be corporals or sergeants before they are even considered for reenlistment, unless the commander says he is a good man and he should be exempted from that particular criteria.

I think the overall signals are good. The key element clearly is the economy, but it provides us an opportunity which we didn't have a year or two ago to do things within the Army that we could not have done 2 years ago.

THE HOLLOW ARMY

Senator WARNER. General Meyer, last year you made reference to a "hollow" Army. Has that now been abandoned in view of the upturn?

General MEYER. When I spoke of the hollow Army, I was not speaking just of people. I was also speaking of equipment, speaking of the totality of what we have to do.

On the people side, in the active component, essentially we no longer find the empty squads and empty tank crew. We do generally—and I am not going to blow smoke and tell you there aren't some out there because there still are. In the Guard and Reserve we will have shortfalls.

One of the things I don't think is appreciated is that this budget before you will bring the Guard and the Reserve to 686,000. We have not been at that level in over a decade, so, to me, that is a very important step forward.

The big problem we still have is that pool of trained manpower, and you can look at that as far as the hollowness is concerned.

Senator WARNER [presiding]. Thank you.
Senator Humphrey?
Senator HUMPHREY. Thank you, Mr. Chairman.

GRANTS AND LOANS TO STUDENTS

Gentlemen, let me follow up on some of the questions that Senator Warner has posed in the area of personnel.

As you know, the President is trying to scale back these programs which provide for grants and loans to students, and at the same time we have another problem in the military, notwithstanding the progress which has been made, of attracting a sufficient number of high caliber personnel.

I would like to suggest that one way of attacking both problems is to require that people who are awarded these grants and loans for educational purposes—and I am speaking of the Pell grants and the loans of various kinds—that either before or after they be required to give a period of service to the military.

I think that is a way of killing two birds with one stone. I hope you will give that consideration and take it up with the President because I think that is a useful proposal.

WORKING CONDITIONS AND FACILITIES IN WEST GERMANY

In the area of personnel again, I just recently took a trip to Germany over the Christmas holidays and spent most of my time there with the Army. I was really shocked and disgusted, frankly, with the housing, with the living and working conditions and facilities in West Germany. I know that I am not telling you anything.

Certainly General Kroesen and others have been reporting this to us for some time. Nevertheless, it was still a shock to see it in person.

What is the Army doing in the 1983 budget to address that problem in particular?

Secretary MARSH. Senator Humphrey, I share your concern about what you observed in Germany. I have also observed it, myself. It is an area that we have been seeking to address. I think there is improvement there and there will be additional funding to try to address more of those problems. It will not alleviate it completely by any means. I think it will make some dent in it.

I will ask General Meyer to speak on it. I think he has some statistics on it.

I noted your comment in reference to the question about student loans. I will take that back to the building. What happens is that the loans become competitive and they compete for the availability of young people we might recruit. It does create a problem.

General MEYER. Two things have happened. One, we have about $1.1 billion for family housing. Much of that goes to Europe in the 1983 program.

Senator HUMPHREY. How does that compare with last year?

General MEYER. Last year it was less than that; the increase has been significant. I will have to give you some figures. We have a supplemental request of $76 million in fiscal year 1982 to assist General Kroesen. As you very properly point out, as we bring in quality people, as we try to keep them and we put them into a

slum, that is part of the problem; those are the things that we have to address.

Senator HUMPHREY. I think that word is well chosen. In fact, I have been using that expression myself, that the Army has become the biggest "slumlord" in West Germany. I think that is appropriate. I am glad to hear that.

General MEYER. One other thing that has happened which will give us flexibility is that the family housing account is run by the services instead of by the Department of Defense, so we can more readily focus our resources on the problem.

Senator HUMPHREY. What about barracks?

BARRACKS PROBLEM

General MEYER. The barracks problem, as you know, is partially held up as a result of our desire to do some moving around of people over in Europe so that they are better located and also so that we are able to take on some of the new equipment that is coming in. That is held up because of the requirement to attempt to have the German Government fund major portions of that.

We are kind of caught between the rock and the hard spot until we are able to sort that out between the Congress and the administration.

Senator HUMPHREY. What is the administration doing to get this restationing operation underway? Are the negotiations being pressed? I got the impression, frankly, from commanders in the field that they weren't being backed up here in Washington. What is happening?

Secretary MARSH. There has been some movement in reference to that, Senator. It is not as much as I would like. Negotiations are underway, but apparently it has not been easy to arrive at an understanding between our two governments.

The Army finds itself caught in the difficult situation that General Meyer described because there is some modernization that needs to occur if we are to improve the quality of life of our soldiers. There is other modernization that is affected by the restationing issue.

Trying to sort those two out has been difficult. Negotiations are underway.

Senator HUMPHREY. They are?

General MEYER. That is right.

Senator HUMPHREY. Is that under your jurisdiction or under the Secretary's?

Secretary MARSH. It would be under ISA.

Senator HUMPHREY. What is that?

Secretary MARSH. Assistant Secretary of Defense for International Security.

Senator HUMPHREY. It is an unfortunate situation because people who are caught in the middle are these young men and women who have to live in these crummy barracks. It is little consolation to them to know that the negotiations which are very difficult are holding things up.

I wish the administration would put major emphasis on that because obviously the West Germans are not willing to spend more

money for our facilities, and they are not interested in arousing the ire of the civilians by creating new bases. It will have to be pressed. A lot of things are being held up because apparently these negotiations have not been given enough emphasis.

Secretary MARSH. There is a point of view and attitude in Congress not to appropriate money for these purposes until there is a resolution of this.

Senator HUMPHREY. Yes, precisely. It is an unfortunate situation, but it is clear what is holding things up are these negotiations. They are going to be difficult. West Germans would just as soon not talk about it, but I hope the administration will press it hard and get it resolved, because we do have some pretty ghastly problems over there.

OPERATION AND MAINTENANCE ACCOUNT

As you know, there is some sentiment around here for cutting the administration's defense budget. As you also know, the O. & M. accounts are always the most tempting target because of the rapid spend-out. What advice do you have for this committee and for the Senate with regard to the O. & M. budget? General Meyer has emphasized the deliberate choice of emphasizing quality, making better use of what we have, and in that context what voice do you have about the O. & M. budget?

Secretary MARSH. If you take it as a given, that the Army's No. 1 priority is readiness, the heart of readiness will be the O. & M. budget. To the extent that we make encroachments on the O. & M. budget and reduce it, you are going to see that reflected in the readiness of the individual soldier and his units; you are going to see it reflected in steaming hours; you are going to see it reflected in reduced flying hours. Those are areas that will denigrate readiness.

So, keeping that O. & M. budget intact is vital for us to achieve readiness, which is the first major priority of the Army.

Senator HUMPHREY. If it is vital to achieve the readiness, how will it affect the quality you are shooting for if the O. & M. account, as usually happens, bears the brunt of any reduction in spending?

General MEYER. As I pointed out, we are in a position of being in a buyer's market now. The buyer's market would fade because the soldiers who are out there would see that they would not be able to use the equipment they have as often as they wished, and the NCO's would have the same attitude. It would start to spiral back to the ground, now that we have our head above the ground.

Senator HUMPHREY. Mr. Secretary, if you had a choice, would you rather see reductions in the Army's budget in the area of weapons procurement or something else versus O. & M.? Would you put O. & M. last?

Secretary MARSH. We feel that the budget that has been presented here on behalf of the Army is an essential one. The decisions made in the formulation of this budget already reflect some of the choices you refer to.

We opted for readiness and consequently there were other things that were sacrificed for that. That is still our view.

Let me mention a school of thought concerning military training in the Army. I pass it on to you because it seems so simple that you ought not to have to think about it, but I think it is very profound.

This school of thought believes that the key to recruitment, to retention across the board, to the type of Army you want, is training. A soldier who doesn't have good training becomes bored; he influences other people; he leaves the service. You can't retain him. He poisons the service to other people that you might recruit.

Training, and I mean good training, has an enormous impact on what type of Army we can have. Thus, the O. & M. account for us is a very important one. I appreciate the emphasis you are placing on it.

Senator HUMPHREY. I am sure you know why.

Thank you. I wish I had more time.

Chairman TOWER. Senator Nunn?

Senator NUNN. Mr. Chairman, let me catch up a little bit. If you don't mind, I will waive and come back on the next round.

Chairman TOWER [presiding]. Senator Cohen?

CONTRACT PROCEDURES

Senator COHEN. Mr. Marsh, you talked about how we are going to handle contract procedures. It seems to me that the evidence is rather clear that one of the problems we have is too many negotiated contracts, and on those negotiated contracts too many sole-source contracts, when, in fact, the law has always been weighted toward competitive bidding.

I would suggest to you that is one area where we might look to get more competition and less sole-source contracting.

Frankly, I have some difficulties with the notion that it is almost too late by the time Congress and we on this committee are to be in a position, as a result of an amendment offered by Senator Nunn last year, to get information from the Department of Defense about those weapon systems that are suffering from substantial cost overrun.

We have had testimony in hearing after hearing from Mr. Carlucci and Secretary Weinberger, who agree that you have many defense contractors who are consistently underestimating the cost of the weapons, therefore by making it much more attractive. Furthermore, the Department of Defense underestimates its inflation projections. Thus, it all looks doable when the budget comes to us and we approve it. Then, as you pointed out, down the line in the R. & D. and production schedule, you have this large swell of cost overruns. We are sort of left like Joseph Conrad in "Heart of Darkness," staring at the headlines and saying, "Horror, horror, and how can we afford all of this."

It seems to me that you and all the services, plus the Secretary of Defense, have to make the initial decision that we can't have all these systems. We have to be much more realistic in the projection of costs so that we don't find ourselves in a position of having Congress saying, you can't have the following systems.

I keep reading stories in the Post, you can't have the following systems; they cost too much. We are put in the predicament of can-

celing systems long after we have spent substantial amounts of money developing them, with the risk that we might, in fact, be jeopardizing the security of the country.

I would say you have the burden, frankly, as much as you would like to talk about controlling costs. Once it gets to Congress, we are not a terribly effective mechanism for doing that.

COST EFFICIENCY OF WEAPONS SYSTEMS AND BURDEN SHARING

I would like to draw your attention, General Meyer, to an article by Edward Luttwak in this month's issue of Commentary magazine. The title is intriguing, "More Fraud, Waste, and Mismanagement in the Defense Department." I suspect his is probably a minority view of one in making that recommendation, but he does have two essential points that he tries to make: He believes that we place too much emphasis upon cost efficiency, which we are talking about here again this morning, and too little emphasis on effectiveness of our weapon systems, that we are, in fact, sacrificing war-fighting, war-winning capability in trying to measure up to the cost efficiency standards that have been imposed by Congress and by the Department of Defense itself.

That is the first point.

Second, he tries to deal with the issue of the so-called reform movement up here on the Hill, the kind of opposition that has been encountered by the Department of Defense—as one general calls this movement, an assault on the military. He tries to deal with this question of how you balance high technology with numbers, how you get enough numbers into the system to be effective.

One suggestion he makes is that we ought to do what we do best. That is, let the United States produce the high technology items and simply demand that our allies, who are failing to measure up to their responsibilities, pick up the balance and produce the so-called low ends of that scale.

What would be your reaction to both of those suggestions?

General MEYER. First, on the emphasis on cost efficiency of weapon systems as opposed to the effectiveness in the way they are used in war-fighting, I generally agree with that. That has been driven by systems analysis and so on which forces you to look at a system in itself separately and use either force-on-force analyses or use system-on-system analyses.

What we are trying to do to break that circle is to put out in the 9th Division, a high technology test bed, not just the concept of looking at new equipment, but also looking at how you can use equipment that we have more efficiently and effectively. We are thus able to look at tactics and doctrine that will maxmize the capability of either present systems or the kinds of future systems we are looking at.

I would like to say, while Ed and I have areas of disagreement, that is an area I agree with.

On the issue of high tech versus numbers, that proposal has been made many times in the NATO arena. It is called specialization as opposed to standardization. It says everybody should do the things they do best, and from an economic point of view it will work out well, anyhow, because everybody will do what they do best.

I think from the philosophical point of view it would optimize the totality of any alliance, but I guess my problem with it is that the way business has become so intertwined today, internationalwise, that there are very few foreign companies that are not also here and our companies that are there. Whether or not you could ever get a country in Europe to agree not to develop their own—take Italy, for example, which has a very good helicopter— systems or not is questionable.

From a very practical point of view, those are things to consider if you want to optimize the totality of alliance commitment. I think when Senator Nunn went over to Europe in 1975, one of the things we looked at then was that whole issue of how you could get focus on each nation doing better what they need to do, so that the totality of what the alliance does is increased.

Senator COHEN. Right now, we seem to be in a position of our doing almost everything. There will be a debate in the coming year, in the next 2 years, on the whole issue of burden-sharing. That word has dropped out of the lexicon. I was in Germany following the invasion of Afghanistan. The key words at that time were, "Let us have more burden sharing." I have not heard that for 2 years now. I think it is an approach. Every approach has its time.

General MEYER. It is one of those that you might look at. It is the practical obstacles I see; it is not only Germany but also every country in the world.

BEARING THE BURDEN OF DEFENSE

Senator COHEN. Do you feel we should be in the position of saying that, "If the United States has to bear the burden of defending Europe and defending the Persian Gulf and defending the Caribbean and other areas of the world, then we simply can't afford to fund all of these programs in which you have as much vital interest as we do. Therefore, you are either going to pick up some manpower costs or the shipping or whatever it might be, or you give us a check. You will just have to make out a check in Deutsche marks or whatever and send it to us to help pay for the cost."

It seems to me we will reach that point, because I can tell you that the sentiment will be that we either reduce our force structure in Europe and redeploy it elsewhere, or we ask them to help pay the cost.

I have talked to a number of Arab nations about this. You are smiling in anticipation. This in not a loaded question.

Would you agree that from an Arab point of view it is likely that we are not going to have much of a physical presence in the area?

General MEYER. I think in the near term it will be very difficult for us to get the kind of presence, if not presence, at least the access, that I think is essential.

Senator COHEN. That will leave us with the dilemma of how we get from here to there?

General MEYER. Right.

Senator COHEN. As you point out, we don't have a great deal of strategic capability, no excess of it, certainly, and we are going to have difficulty getting from here to there fast enough with enough

force that is substantial. Does that leave us with an alternative perhaps that we may do more to allow those Arab nations to build their own defense capability rather than predicating the Rapid Deployment Force on the notion we are going to fly our people from here to there not with CX aircraft but C–5's or whatever?

General MEYER. I think that is one of the potentials. Let us take a program that everybody is aware of and some of you have put your reputation on the line for, that is, the air defense of Saudi Arabia. Everything they can do as far as air defense of their own area against the Soviet threat means that there are many fewer weapons or that many fewer aircraft, or that much less equipment that we have to put over there as part of it. It is that kind of building block that I think provides some potential in that area.

It is still a very hazy mosaic that needs to be filled in.

Senator COHEN. Thank you.

Chairman TOWER. Senator Nunn?

U.S. ARMY COST DISCIPLINE ADVISORY COMMITTEE

Senator NUNN. Thank you, Mr. Chairman.

Mr. Secretary, first of all I haven't had a chance to read all of this report of the Secretary of the Army about the U.S. Army Cost Discipline Advisory Committee. I have read some of it and the staff has been through all of it. Let me congratulate you on taking this step. I think this is one of the most significant reports and most significant suggestions about how to get on top of this problem that is plaguing all of us, and all Services, and that is the cost overrun problem.

I congratulate you for this report.

I particularly like your emphasis on early warning which is, of course, what I have tried to do in the unit cost amendment. I know this unit cost amendment will cause a lot of pain and suffering the first year, but that pain and suffering and slight embarrassment is essential if the leadership and the congressional branch are going to not only be alerted to cost overruns in the early stages but also be attentive enough so that we can together find some solution to this.

So, congratulations on a good start.

ARMY DOCTRINE

General Meyer, also while I am throwing out accolades, I will say I am pleased to hear about the fresh thinking going on in the Army now. I think you described it in your statement as an evolutionary process. I am sure that is accurate. I have had a chance to be briefed by TRADOC the other day about the thinking going on. A great deal of that at least has evolved under your tenure. I think that is a real breath of fresh air in terms of Army strategy and relating it to the real threat that we have now and to some of the problems that I have felt were almost unsolvable if we continue along the past thinking.

Could you tell us a little bit about that new Army concept? I don't know whether you would call it new or evolutionary, but whatever you choose to say, I would like to have a little bit on the record.

General MEYER. As we look to the future and realize that we are going to have to have forces that are flexible enough to be able to operate across the full spectrum of warfare, from counterterrorism all the way to our involvement in the strategic environment, as we look to the fact we have to operate in all kinds of terrain, as we look to the fact we are going to operate with allies all over the world, it indicates that the key to the Army in the future is to be flexible enough to be able to do that.

That requires that we develop tactics and doctrine that put the focus on greater decentralization of authority, the opportunity for gaining the spirit of the offensive rather than purely the defensive spirit which permits us to be able to take a new technology and instead of trying to kill tanks on the frontline and keep stacking up and having to continually operate in the environment of attrition, solely, that we look at those areas in his rear which we know the enemy has which are weak, such as his command and control. We need the ability to disrupt, delay, and deceive in those areas, and we must develop tactics, equipment, and doctrine and the ability to get the folks there so that the Army in the future will be able to keep the enemy at hostage instead of ourselves being held hostage.

Senator NUNN. Would it be fair to summarize it by saying you are giving more attention to the disruption of second echelon forces now than before, and that you are also giving more attention to exploiting by maneuver the windows of vulnerability that may appear when they appear on the basis of the disruption of second echelons?

General MEYER. Exactly. That is what I am talking about, tackling the key weaknesses that exist, that is, in the second echelon, communications centers. Our ability to be able to attack deep prevents us from getting into the kind of attrition-type battles that we have been in in the past.

I quoted in my opening statement from General Rommel on that maneuver.

Senator NUNN. I read it.

General MEYER. Which I really believe. He believed strongly in maneuver. He also focused on the fact that you have to get at the heart and soul of the enemy and try to disrupt him before you get there.

Senator NUNN. Attrition has the connotation of a sort of stand-in-place-and-slug-it-out kind of thing, and there is nothing incompatible with attrition and maneuver?

General MEYER. There is not. Traditionally, you start at the squad. On the squad level you call it fire and movement; above that, firepower and maneuver. As you go above that, you talk about the strategic aspect of maneuver.

Senator NUNN. There are some people who feel that the procurement sections of all the military services sometimes are not completely plugged into the new thinking whenever it appears, and it takes years and years to ever turn the procurement cycle around. Without getting bogged down into that kind of skepticism, what are you doing in regard to procurement to make sure that procurement over the next 5 years fits in with the strategy that has evolved?

General MEYER. What I am trying to do to short circuit the procurement time is create a piece of sand in the oyster, and that sand in the oyster we hope will turn out the pearl, and do all the other things we want it to do, is the high technology test bed, where we are going to try to go and buy off the shelf, identify the kinds of equipment that will be most effective and the kinds of operations we are talking about, test new concepts of deployment, tactics, and doctrine. We have plugged in elements of the procurement community to attempt to try to use that short circuit in the system to try to help overcome what is, as you pointed out, a traditionalism which is very difficult to offset.

That is the approach that we are taking with General Keith over in DARCOM, who is plugged in out there, to try to tell me—I just had a meeting a week ago—to tell me what else we have to do to shorten those requirements.

Senator NUNN. The next year's budget will be the first budget that will reflect this?

General MEYER. Yes. There are some in this budget. Basically the budget this year is designed for testing equipment.

Senator NUNN. Will part of that new equipment be so-called smart weapons that will go after the second echelon?

General MEYER. It will be focusing on second echelon and will be focusing on lighter, more effective and more mobile force projection capability that permits you to put forces out there as well.

Senator NUNN. There was an article in this morning's paper that I have not had a chance to read in detail. The thrust of it was that the Army had a major problem with a smart weapon that is already in the inventory.

First of all your comment about that problem, but second and more importantly, does this problem that you have affect this quest for better ammunition and more smart weapons?

General MEYER. The particular weapon you are talking about, really, is not a smart weapon; it was merely a different kind of munition in a standard warhead; it just threw out a lot more bomblets.

Senator NUNN. It did not have precision guidance?

General MEYER. It had none of those aspects.

Senator NUNN. It is a dispersal weapon?

General MEYER. Yes. That is the 1980 issue. It was poor quality control on the part of the contractor, poor quality control on the part of the supervisory people that we are supposed to have out there. I found out about it about a year and a half ago. We have been working on that problem since.

Senator NUNN. So, this is not a smart weapon?

General MEYER. This has nothing to do with smart weapons. The two issues are not related.

Senator NUNN. This does not put a hole in that new thrust?

General MEYER. No, sir.

MARITIME STRATEGY

Senator NUNN. Shifting the subject, you mentioned in your statement there are many who envision a future security posture devoid of a central role for land forces. This gets to the question, I sup-

pose, directly or indirectly, of the so-called maritime strategy, maritime supremacy and so forth. How do you see the Army's role in this new strategy, if it is a strategy and if it is part of the thrust of this defense budget we have before us?

General MEYER. I believe that it could carry maritime strategy and supremacy to its absurdity, that then it would mean that you would not have forward deployed forces, your alliance would come apart and so on. I don't believe that those who talk about improving the capability of the Navy have that in mind. I hope they don't, because it would be dangerous for our Nation.

I believe that we need a balance with our continental strategy. The Soviets are a continental power. Winston Churchill said Russia is a land animal. They don't have a PACOM and LANTCOM organization for oceans; their ocean areas are an extension of the land area. That is the way they operate, out from Kamchatka, out from some of the other areas.

I just believe that only if we permit maritime strategy to go to an absurd length would it diminish the importance of continuing a balance between maritime capability and a continental land capability that is able to counter the Soviets in those areas, as well as the ability to get forces there.

When I talk of land, I am talking about the air-land battle.

Senator NUNN. You are saying you would not want to get to the point where our strategy envisioned conceding the Soviets' ability, for instance, to completely take over the Middle East on land in exchange for sinking their navy?

General MEYER. Exactly, because then it means we have to project power back to shore after we have given it up, and I think that would be far more costly in the long run. It also is destabilizing.

Senator NUNN. I want to come back to that, but my time has expired.

Chairman TOWER. Senator Quayle?

COST OVERRUNS IN MISSILE PROGRAMS

Senator QUAYLE. In looking through the reports you sent to our distinguished chairman. I notice that out of the 21 programs in which you have cost growth, 12 of them are guided missile programs. That's over 50 percent.

Is there some message there, Mr. Secretary, that the missile programs are more prone to cost overruns?

Secretary MARSH. I had not picked up that statistic, Senator.

Senator QUAYLE. You have 12 out of 21, just going through them, in the Department of Defense. In your service, four out of the five cost overruns are guided missile programs. I wondered if there is some message there. It is a rather revealing statistic to me on first glance. I wonder if anybody had noticed that and could comment on the subject.

Secretary MARSH. I had not focused on that point, as I said. It is a good one and should be explored. I would imagine that part of the explanation is that the whole missile development program, especially missile technology, is always advancing the state of the art, pressing the limits of new technology. A great deal of it is ex-

perimental and it is expensive. It requires expensive testing, and I suspect that contributes in part to it.

One of the basic problems we have is systemic. We need to address methods to provide earlier warning of problems. As Senator Nunn mentioned that is very key.

Senator QUAYLE. I don't know if there is any message or not, but I would suggest that you might want to look into it a little further to see if there is some pattern.

Secretary MARSH. We will look into it.

COMMUNICATIONS, COMMAND AND CONTROL (C^3I)

Senator QUAYLE. General, last year in the C^3I area, if my memory is correct, DOD testified that our C^3I was better than the Soviets' capability in peacetime. There was a question whether it was better than the Soviets in wartime, and I believe you has given the advantage to the Soviets.

I wonder if in response to Senator Nunn some of the new policies and capabilities you talk about are going to fit the policy development and the fresh thinking that is going on?

General MEYER. I believe the C^3I that was addressed in the past has been principally in the strategic nuclear area. In the conventional land battle area I believe that today we are also behind in communications.

One of the high priorities therefore is to improve the capability to operate in a more decentralized mode. To do so will require improvement in our communications to put that whole thing together. That is an area of high priority along the lines I discussed with Senator Nunn. That has to be done.

Let me just say it this way. The better communications are, the better your ability to be able to recycle forces, the fewer forces you need.

Senator QUAYLE. To get the flexibility which is inherent, you will have to concentrate——

General MEYER. We will have to improve our communications, command and control, C^3. We have expedited a radio system that will help us to do it, which is not as good as we want it, but we have to get it into the system.

ATTITUDE TOWARD TROOPS IN WESTERN EUROPE

Senator QUAYLE. I have a general question in relation to Western Europe and the demonstrations that have gone on over there. Has there been any increased hostility toward our troops in the form of an anti-American movement, as well as antinuclear protest?

Secretary MARSH. I will defer to General Meyer on this, because he commanded a division there. I was with our NATO forces in September and the impression I got is that the American soldier is highly regarded there. Their retained presence is something that is sought. The big problems occur because of the quality of life that involves our own soldiers.

Senator QUAYLE. I am just talking about the attitude of European people toward our troops in view of the increased demonstration. Have you noticed any change? Maybe you haven't. We certainly see a change in attitude of the Europeans.

General MEYER. I would say if you look back from the end of World War II to today, there is a definite change because today the people with whom our soldiers are associated don't remember World War II; therefore, the youth have grown up in a different environment. They are the young men and women with whom our soldiers principally associate, so there is a different relationship than existed before, when every citizen of Europe was grateful to our country for what we did and the soldier was held in a true status of esteem.

In my first tour over there it was exciting to go through small towns because people still came out and said "Thank you." Over time that has changed. There are areas in Germany where I am sure some of our troops feel an element of increased hostility. In other parts, the German people go out of their way to go in the opposite direction, to show them that they are wanted.

I asked the Inspector General who just went over in January to come back and give me a feeling. He just happened to come in with a report to me on that this morning on the impact of terrorism on our dependents over there. He indicated in this regard that it did not appear to be a serious problem at this time, but there were some inklings of concern in some areas.

Senator QUAYLE. Are we doing a little bit more in view of the Dozier situation?

General MEYER. Yes, we are.

Senator QUAYLE. On balance, you say the effect is not noticeable?

General MEYER. It is not above the noise level at the present time, but it is something we have to stay attuned to.

CHEMICAL AND BIOLOGICAL WARFARE

Senator QUAYLE. The next line of questions I have is on the issue of chemical and biological warfare. I am sure that you have seen the reports on the use of such weapons not only in Afghanistan but also in Laos and Kampuchea.

First of all, would you comment on the validity of the reports that you have seen. What can you say in public, about the credibility and validity of reports that, in fact, chemical warfare is going on?

Secretary MARSH. Senator, I have been briefed on that. From the briefings that have been given to me, I am convinced that they have been used. I have no problems as an attorney as to the evidentiary quality of what has been presented to me. I am convinced that they have been used based on the briefings given to me.

General MEYER. I am, as well.

Senator QUAYLE. Also being an attorney, Mr. Secretary, isn't there circumstantial evidence that there has been Soviet involvement? Can you go that far, can you say that?

Secretary MARSH. The briefings that I received would lead me to the conclusion that those chemicals would have been of Soviet origin.

Senator QUAYLE. You don't have any doubt that there is Soviet involvement, and you use the words "Soviet origin" with these chemicals that have been used; is that right? Do you agree with that?

General MEYER. Yes, sir; I do.

Senator QUAYLE. So, we can say in clear conscience, in beginning a discussion on chemical warfare and biological warfare, the fact is that the Soviet Union is involved, and the fact is that we have scientific data that chemical agents have been used. There is really no argument about that, is there, in your opinion?

Secretary MARSH. I think the only prudent course would lead you to that conclusion and our defense posture is structured according to that conclusion.

Senator QUAYLE. I certainly hope that we can get more into that. I know it is a sensitive area because it involves a lot of classified information, but as we advance the discussion on this, we have to be able to declassify as much as we can and tell the American public what is going on, and then discuss our options.

I don't think we can just come in and say we are going to move in the direction of acquiring a new U.S. capability, after silence for 13 years, and just expect it to be received. Going ahead may be the proper course. That may be the only option we have. I don't really know, but I would hope that we can work together and also that this committee can begin to discuss and focus on this very key issue and what some of the options would be, or if this is the only option.

Chairman TOWER. Mr. Quayle, your time is up.

I might say on your line of questioning that in fact it is the intention of the strategic subcommittee to get into the problem of chemical and biological warfare. At least the subcommittee will examine that very closely and report to the full committee.

Senator QUAYLE. I think that will be very helpful.

Chairman TOWER. Senator Levin?

UNITED STATES-SOVIET PARITY

Senator LEVIN. Thank you, Mr. Chairman.

General Meyer, last year I asked you and the other service chiefs whether you felt that your service, along with its allied counterparts, was militarily inferior to the same services belonging to the Soviets and their Warsaw Pact allies. My recollection is that you were the only service chief that answered "yes," and that your colleagues on the Joint Chiefs of Staff answered with a qualified or very definite "no."

Do you still have that position?

General MEYER. Yes, because of the qualitative needs that we have to improve the equipment of the Army so that it is equal to or better than that of the Soviets.

Senator LEVIN. I also asked you last year whether, despite that position of inferiority, you would trade the U.S. Army with its weapons, personnel, missions, range of capabililties, strengths and weaknesses, for its Soviet and Warsaw Pact counterparts, and you indicated no. I am wondering if that is still your position?

General MEYER. That is still my position, Senator.

ARMY PORTION OF THE DEFENSE BUDGET

Senator LEVIN. Thank you.

This morning you have been asked by a number of my colleagues about the maritime strategy about which we are reading so much. I understand, General, that your answer was that you are not concerned about the TOA for fiscal year 1983 in terms of the proportions going to the Army, the Navy and the other services. Do I gather from that that you are concerned or you do have some fear that in the event the large defense spending increases in the outyears that are now being requested or said to be requested are not granted by the Congress, that it is the Army that could get gored in those outyears?

General MEYER. It goes beyond whether the Army gets gored. I am concerned from a national defense point of view that you will have an unbalanced force not being able to carry out what I consider to be a necessary strategy.

Senator LEVIN. The reason for that would be that the commitment would be made this year pursuant to the so-called maritime strategy to certain big ticket items such as large deck nuclear carriers, and should defense resources become more scarce in the outyears than are now projected in the 5-year plan, that it is the readiness capabililty, the land force capability, which would have to get the short end of the budget stick?

General MEYER. I certainly have that fear, but may I give a very short lecture?

It is absolutely essential that we get some constancy in what we are doing with our defense establishment. That we establish the direction in which we are going and put some constancy of purpose to our efforts across the board. Until we do that, the perturbations and so on that we do in programing, budgeting, and execution every year, waste money for the American people and give us less defense.

So, we have to get an element of constancy in the direction we are heading, through an agreement among the administration, Congress, and the departments and get going in that direction and all agree to support it, because if we don't do that. we are going to continue to waste the dollars and get less defense than we need.

Senator LEVIN. That was a very mild lecture and I think everybody would probably agree with that.

The question I have is about the Army's role in a balanced defense and about the fear that in the event that the substantial increases in the outyears that are part of that 5-year defense plan are not forthcoming, for whatever reason, whether it is because the budget is so far out of balance that the Congress simply will not go along with increases of that nature, or whether it is because other priorities are selected by the Congress in terms of domestic needs.

If for whatever reason those large increases are not forthcoming in the outyears, is it your fear that because of the big ticket item commitments that we are making in fiscal year 1983, the land force portion of our balanced needs in the outyears will suffer disproportionately?

General MEYER. That is a very real concern of mine.

Senator LEVIN. Is it also your fear that in the outyear budgets that are now projected, the 5 year program that we have before us, that the Army already does not receive sufficient resources to buy what is needed to fulfill its mission?

General MEYER. I will give you my personal view and I indicated this at the start. I don't believe, despite the fact we are able to make improvements in the Army in the current program, that we are doing it as quickly as I believe is necessary.

Senator LEVIN. Does that fear relate particularly to the 4 years after fiscal year 1983?

General MEYER. Yes, it relates to this constancy of purpose that I outlined before.

Senator LEVIN. My question is a little different. We have a 5-year defense plan. I gather that you feel that the 1983 budget in that plan is relatively adequate. What about the budgets planned for 1984 and 1985?

General MEYER. Again, if we go into what we expect to get in 1985, 1986, and 1987, there are large additions in that time frame to Army general purpose forces. Again, I am always a pragmatist and realize and understand that the bow wave continues to be pushed out. That is my concern. It is not that the program today doesn't have significant resources in those outyears.

Senator LEVIN. So the projected resources in the 5-year plan, you feel, are adequate?

General MEYER. I have never said to Congress that any of the resources we have are adequate. I don't believe they are.

LAND FORCE SUPREMACY

Senator LEVIN. Let me switch the subject.

On the maritime supremacy question, we now have a posture statement that says that we seek to achieve and maintain maritime supremacy. My question relates to land forces posture. Do we seek land force supremacy?

General MEYER. I don't believe that that is a stated national position as far as land force supremacy.

Senator LEVIN. Should we?

General MEYER. I believe that in conjunction with our allies that we ought to insure that around the world we have sufficient land force. I suppose in the abstract the answer is simply yes. We ought to have a totality of land power supremacy around the world, but we have not made that kind of statement.

Senator LEVIN. How would you phrase that goal?

General MEYER. Our goal would be that in conjunction with our allies that our land power forward deployed and deployable under mobilization scenarios is adequate to deter and then through reinforcement to be able to defeat any enemy including the Soviets.

ARMY END STRENGTH

Senator LEVIN. Let me ask you a question about our Army end strength. The original fiscal year 1982 budget that the Carter administration submitted called for an end strength of 786,300. I understand the Army's end strength request in this budget is about 2,500 less. I am wondering, first, Mr. Secretary, whether or not you are satisfied with this end strength?

Secretary MARSH. Yes, we think that this end strength is consistent with the decision that was made as to which course the Army would follow. General Meyer addressed this earlier. The alterna-

tives were whether or not we would have a larger force that was inadequately equipped, or whether we would have a smaller force equipped with modern, capable weapons. The manpower figure you see is consistent with the Secretary's decision.

Senator LEVIN. General Meyer, do you think it makes sense to hold down the growth in the size of the Army, particularly in light of the favorable recruiting environment in which we now find ourselves?

General MEYER. I think we have to, in order to get quality across the board—quality in equipment and quality in people and so on. I think at this point in time it was a conscious decision, as I indicated earlier, to hold down the strength so that we could take care of the other things that are broken that need to be fixed.

Senator LEVIN. How much end strength will the Army need in the force structure you are proposing to achieve by fiscal year 1987 and in what fiscal year will those increases in end strength take place?

General MEYER. We have held the end strength level for 1982, 1983, and 1984. The bulk of the active Army growth will take place in the outyears and that is up to about 820,000 to 830,000. Reserve growth principally reflects the addition of two National Guard divisions and a host of other support and combat units.

Senator LEVIN. The "outyears" are the last 2 or 3 years of the fiscal year 1983–87 plan?

General MEYER. The last 2 years, as I recall.

Senator LEVIN. Thank you, Mr. Chairman.

M1 TANK

Chairman TOWER. General Meyer, did you read an article under the byline of Walter Pincus in yesterday's Washington Post, "New Tank Needs an ACE To Dig a Hole"?

General MEYER. Yes, sir.

Chairman TOWER. Do you have any comment on that?

General MEYER. Yes, sir, much of that is taken out of my testimony last year. The question that came up was the requirement as we look to the future for being certain that as the Soviets' weapon systems became more effective, the importance of being able to dig in our infantry, dig in our personnel carriers, artillery, and take advantage of the earth to provide protection to soldiers.

One of the elements which was also included in that was the M1, and if you have an M1 dug in, it is better protected than if it is not dug in. That is the rationale behind it.

The issue is as to whether or not a current M60 or a current T–64 or a current T–72 can dig itself in. The answer to that question is no, there are no tanks that can dig themselves in. The blade in front is to push debris out of the way; it will not be able to go in and dig in like a bulldozer or earthmover will. The two things are taken out of context, in my judgment, in that article; they are unrelated.

Chairman TOWER. Does the M60 have a superior capability to the M1 to dig in?

General MEYER. It will have the same capability. In other words, they can't dig in, such as plowing packed earth and digging it up. That blade up front is to get debris out of the way for them.

Chairman TOWER. What about the T-72?

General MEYER. It has a limited capability; its blade is down underneath and flops up in front. I would relate all blades on tanks to a snowplow as opposed to something that provided you with the capability of digging. That is the difference.

Chairman TOWER. Mr. Secretary, I have a number of questions. I would like to submit for the record and get your response in writing. They have to do with cost growth of the AH-64, the M1, the Hellfire missile, the Patriot, to name some.

Another question is on absorbing cost growth by stretching out procurement schedules. At what point do you recommend termination as a result of cost growth and whether or not you are willing to cancel low priority programs to fund higher priority programs that have cost overruns. There are a whole range of questions in relation to the Guard and the Reserve. I will submit those in writing and will appreciate a timely response.

Senator Humphrey?

COST GROWTH

Senator HUMPHREY. Mr. Secretary, you said that in regard to cost growth, the timeframe in which it occurs is usually in the transition between development and production. What did you mean by that?

Secretary MARSH. That was an observation that was made by the Under Secretary of the Army, Mr. Ambrose, on the AH-64. He considered that to be the most critical point because we have the development cost behind us and we are getting into the question of bidding and moving into the actual production. You have a lot of costs that represent a heavy investment. You feel compelled to go forward.

Perhaps the competition may not have been as keen as you would have liked, and certainly other factors come into play. Invariably for some reason when you go back and look, you will find a significant cost growth in that particular stage when it first goes into production.

Senator HUMPHREY. Doesn't that indicate that costs were underestimated in the first place?

Secretary MARSH. Underestimation of cost is a very frequent problem on both the part of the Army and the contractors.

The other point that Senator NUNN mentioned, the lack of early warning, is another major problem. That, incidently, is one of the areas that the Cost Discipline Committee said that we needed to do a better job on. Frequently, the knowledge of the cost growth occurs too late, and you have already started down a contractual path, and then you are legally obligated.

Senator HUMPHREY. Mr. Bowsher of the GAO was before the committee yesterday. He seemed to agree that so far as the inflation aspect of cost growth is concerned—and that is one of the significant factors—that some political element creeps in. You are required currently to accept from OMB their inflation forecasts, even

though in 1983 OMB is making some special side forecasts for military inflation which tend to be more than general inflation, and, of course, the OMB tends to reflect the wishes of the administration, to some extent anyway.

Isn't there a better way to do this? Can't we take a previous year's experience on related systems, similar systems, and use that as a basis for forecasting inflation, rather than taking something from OMB which historically has been far below the experienced inflation?

Secretary MARSH. The inflation add on and the projected inflation cost has been a factor. I don't believe it was a factor this year, but it could become a factor again in ensuing years.

You are caught in a difficult situation in reference to indices, because any administration, I believe, has the right to project or to base future economic prediction on its own programs.

If you are wrong on your inflation indices, for example, if they are too high, you may get a psychological chill effect on the economy. So forecasting is not an easy thing to do. But your point is well taken. The inflation indices do have an impact on the future and on the cost growth.

Senator HUMPHREY. I think it is critical because when inflation is underestimated, later on it causes all kinds of instability in program reduction, increases in procurement cost.

One of the real keys to getting some realistic inflation estimates in the first place is that we need to change our system. I just wanted to bring that to your attention.

HOUSING IN GERMANY

One last question for General Meyer.

When I was in the Federal Republic, General, I toured a good many barracks. I was there for 5 days. To be sure, the physical plant is badly deteriorated—that is the fault of the Congress more than anyone else—but in addition to that let us say in all candor that it appears to me that certainly in the 20 years or so since I lived in barracks that standards of uniformity and cleanliness and order have declined dramatically.

I realize that times change and you do your best under existing conditions, but I would suggest that based on what I saw—and I have not seen all that much for I don't get out in the field as often as I would like—but based on what I saw in West Germany, where almost invariably—there were some exceptions—almost invariably the barracks are flophouses, more like fraternity houses than military barracks, not reflecting at all the serious responsibility of our soldiers.

I would suggest that it is time to instill or to demand higher standards of uniformity and military bearing in these military barracks. Some of these company commanders told me, "Look, we work our people hard in the field; they train very hard and when we come home we let them do their own thing," and boy, they do it.

These barracks, some of them, are flophouses, as I said. I can think of other terms. They are disorderly, dirty, some of them malodorous. What is going on?

General MEYER. What is going on is two things, a shift in the period of time in which we went to a volunteer force where we broke those barracks into separate rooms, as opposed to the way they were when you were in them, where the platoon sergeant would come in every day, check the bunks, wall lockers, and see that the shoes had heels. We did that in the early 1970's in the interest of the All-Volunteer Force.

It changed the whole way in which folks are taken care of. It is more like a hotel than it was before. That is part one.

Part two is that we really lost our noncommissioned officer corps as a result of Vietnam and we are just in the process of building that back up. Without noncommissioned officers in there who understand what the standards are, it does not matter what you tell the soldiers. So I had all the 16 division commanders at Carlisle in December, from all over the world. We talked at great length about this and the need for 1982 to be the period of discipline and higher standards.

If I had said that 2 years ago, Senator, nothing would have happened, because the NCO's weren't out there to start implementing it. As I said earlier, we are in a position now where we can start to do some of those things that should have been done. I just have to be very honest with you. Despite the fact that I am Chief of Staff, if I had said that 2 years ago, it couldn't have happened, because we had a shortfall in noncommissioned officers.

Senator HUMPHREY. I understand that. At the same time I think it would be worthwhile to really lay down the law. I think the people would rise to higher standards. I really felt sorry for those young people who maintained some decent standards. I would not spend a moment longer in the Army today than I had to because I am being forced to live in among a bunch of people who prefer to live under slovenly conditions.

It is a matter of driving out the good people in addition to all the rest. I surely hope that you will put your foot down. I know you have a lot of handicaps and I commend you for the great progress you have made.

General MEYER. I completely agree with you. I think we are able to do that now.

Senator HUMPHREY. Thank you.

Chairman TOWER. Senator Nunn?

GAP BETWEEN STRATEGY AND CAPABILITY

Senator NUNN. General Meyer, I am concerned and have been—this is not something which has arisen in the last year but goes way back—about the gap between our military strategy and our means to carry it out. The thing that has changed in the last 2½ years, under both the Carter and the Reagan administrations, is that 2 to 2½ years ago we had a very large gap between our strategy and our ability to carry it out, and in the last 2½ years, since the Persian Gulf has been added, the overall strategy in terms of what the demands are and what we define as the threat and what we define as our vital interest has greatly expanded; and, in my view, even with the budget increases, has widened the gap between strategy and overall capability in resources.

Do you share that, or do you differ?

General MEYER. I think I would have to basically agree with that. A year ago the principal focus was on Central Europe. As you looked at that, you were able to isolate the requirements for resources. As you look to expanding strategy, to a more global strategy, the inability to do two things simultaneously increases that gap.

JOINT STRATEGIC PLANNING DOCUMENT

Senator NUNN. You are a member of the Joint Chiefs and also, of course, Chief of Staff of the Army. In your JCS role you are familiar with the joint strategic planning system, are you not?

General MEYER. Yes, sir.

Senator NUNN. Does that system produce the so-called JSOP or Joint Strategic Operations Plan?

General MEYER. It produces a successor to that, the Joint Strategic Planning Document.

Senator NUNN. It is called the Joint Strategic Planning Document now?

General MEYER. Yes.

Senator NUNN. Can you tell us what that document represents, in general terms, not the names of individuals but who has input into that?

General MEYER. That is input by all of the Services, by the Joint Staff, by the Chairman, and by the CINC's, and it represents the best estimate of those people as to what the military needs are to respond to the outlines of the strategy that have been provided by civilian leadership.

Senator NUNN. Would it be fair to say that that document now represents a wider gap than it has in previous years because of the increase in overall definition of "vital interests"?

General MEYER. I would say yes.

Senator NUNN. Does that document represent the collective judgment of our top military leaders of what is necessary to meet the threat under the strategy guidance provided by the Commander-in-Chief and the Secretary of Defense?

General MEYER. Yes.

Senator NUNN. Did the JCS develop that kind of document this year?

General MEYER. Yes. We develop one every year. We developed one in preparation for the budget before you.

Senator NUNN. Was there an increase in military force required to carry out the strategy in the doctrine this year as compared to the previous year?

General MEYER. The answer is yes.

Senator NUNN. Is that by a significant amount?

General MEYER. I don't remember the specifics of it right now. I can speak in terms of the Army. As to your definition of "significant", since it is classified, I would not say numbers, but in the case of the Army I would say it is significant.

Senator NUNN. Does that document go to the Defense Resources Board, or what part does the Defense Resources Board play in this process?

General MEYER. Yes, it does go to members of the Defense Resources Board, and the Chairman of the Joint Chiefs of Staff on the Defense Resources Board is the spokesman for the Chiefs in the development of the program and budget.

Senator NUNN. Who else is on the Defense Resources Board?

General MEYER. Each of the service chiefs, the Service Secretaries, the Secretary of Defense, the Deputy Secretary of Defense, the two Under Secretaries, and the Assistant Secretaries of Defense.

Senator NUNN. All the Joint Chiefs are on the Board?

General MEYER. They are there in their departmental role.

Senator NUNN. Is that document that we are referring to signed off by the Defense Resources Board, or is it simply there for their guidance in terms of their making their own decisions?

General MEYER. It is something which they use as a peg point against which they bounce the proposals that they have within budget guidelines.

Senator NUNN. Do you consider that document a "wish list" by the Service chiefs? Is that the best description of it?

General MEYER. I don't consider it a wish list, if you believe the defense of the Nation is important and the jobs required to do that are important. I don't consider that a wish list. If you define it in those terms, no. If you define it in the context of is that total requirement going to be procured or be supported, I don't think there is anybody who believes that they are ever going to get all that money. It is our responsibility to say what we think is necessary for the defense of the Nation.

Senator NUNN. One of the witnesses testified that this document was looked at for 30 seconds by the Defense Resources Board and put aside as more or less a wish list. How much input goes into the document? If it is not given any more consideration than that, are we wasting a lot of valuable time and effort in producing such a document?

General MEYER. One, I think we, by law, have a responsibility for stating what we believe the requirements are.

Two, I think it should receive more attention than it does.

Three, even if it does not receive the attention at this instant in time, if we started to mobilize tomorrow it would provide you with the only available check list against which you could start to tick off the kinds of priority things you had to do in order to get on with prosecuting the war effort.

Senator NUNN. A version of that came out in the newspaper. I suppose that was the same document, at least part of it, and it indicated a $750 billion additional cost. If that figure is right, $750 billion, was that an indication of what was needed in addition to the present budget forecast over the next 5 years, or was that for a much longer term?

General MEYER. I think that was for a longer term. I wasn't there that particular day. So I don't know the specifics of how that

was presented, Senator Nunn. I was out of town at that time. My Vice Chief was there that day.

Secretary MARSH. I was not present that day either.

Senator NUNN. So you view that as a serious document and serious effort by the Joint Chiefs?

General MEYER. Yes, sir, I do.

Senator NUNN. Now, looking at that document as a serious effort and looking at the gap and at the 5-year budget we have before us, even though it is a very, very large budget growth and it is under fire now as being too large by a lot of forces, what does this tell us? Is there a message here that we had better take a look at our strategy, we had better take another look at what we define as our vital interests, or is there a message that this huge gap can be filled in a reasonable timeframe if we do get into a conflict? What is the message coming out of that gap?

General MEYER. I think the message that comes from the gap is that we are accepting tremendous risks with the size of forces that we currently have to do what we have pledged to do.

Senator NUNN. If we continue to keep the same pledges we have and define our vital interests as they are?

General MEYER. Yes.

Senator NUNN. You are saying we either have to recognize that we are taking a very, very large risk—you said a huge risk, I guess—or we have to take another look at our strategy or a combination of the two?

General MEYER. Yes, sir.

Senator NUNN. Mr. Secretary, do you want to comment on that?

Secretary MARSH. Senator, the document you are referring to has been used in the DRB deliberations. The manner in which I recall its being used would be during periods when you are required to consider different service positions, and there would be a need for an opinion that would weigh in and cite the Joint Chiefs' view. I found this to be very effective on a number of very broad and significant issues.

In reference to the tasks that we have before us, I think we have to continue to remind ourselves that the U.S. military requirements are driven by world needs, the changing international environment, and the turbulence which it creates.

The budget that we have before us represents what is considered to be the best summary of our military needs based on the resources that are available to us. It is predicted on a period of sustained spending for a period of years.

I think it takes into account what resources we can expect to be generated from the American taxpayer and what we can expect from the Congress.

Yes, there are great needs that must be addressed. I think a significant portion of our strategy has been that of parity. We believe that with parity we can deter conflict. Thus far we have been successful. We believe that the right budget we are presenting now and the Armed Forces structure its represents drive us toward that parity we seek in order to achieve that goal of deterrence.

Senator NUNN. My time is up. Thank you.

Chairman TOWER. Senator Hart?

TESTIMONY OF THE DEPUTY SECRETARY OF DEFENSE

Senator HART. General, I was intrigued by your response to Senator Nunn because I asked Secretary Carlucci essentially the same set of questions a couple of days ago and he said the alternate document was just a chart somebody drew up which sort of said if we could have everything we want, what would it be, and dismissed it with that.

What you have said today is 180 degrees away from that. Can you account for the disparity between your responses to Senator Nunn and what Secretary Carlucci told us?

General MEYER. I certainly cannot. I can only tell you what my view is and how much time I spent on that particular document and the importance I attribute to it. I mean the difference is that if he said what you said he did, he does not attribute the same importance to it.

Senator HART. He did not attribute any importance to it at all. He said, over in the Pentagon occasionally we go through exercises of, if you could have everything you wanted, what would it look like, and they drew up a chart and it said $750 billion; he said it was never seriously considered.

I hope I am not misstating in paraphrasing his position. If I have accurately portrayed what Secretary Carlucci said 2 days ago, and we contrast it with what the Secretary of the Army has stated, I think we have a serious problem on our hands. I mean that sincerely.

We ought to have everybody up here all at once and nail this issue down about whether we are adequately financing, even with the enormous growth, the defense of the country.

I would hope that we would do that. We are doing it a little differently this year.

CHEMICAL WARFARE

Mr. Secretary, on the issue of chemical agents, on February 5 a senior official in the Pentagon was quoted as saying, "The use of poison gas frightens people, but it could be considered a cheaper substitute for nuclear warfare that would do far less damage outside the battlefield." Do you agree with that statement?

Secretary MARSH. No. The position of the Army is one with which I am sure you are familiar, Senator. We advocate abolition of chemical weapons from the battlefield and the obtaining of a verifiable treaty that would keep them off. But thus far we have not been successful in achieving that.

I do not hold to the view that you expressed. My own perception of the need for the development of a chemical warfare capability is, one, a defensive capability is vital, and two, a retaliation capability is essential to preclude the first use by any of our opponents. These capabilities should keep these weapons off the battlefield. This approach was successful in World War II and I think it would still be successful.

Senator HART. So our official military doctrine is no first use?

Secretary MARSH. That is correct.

Senator HART. That being the case, what you have just stated about the preeminence of defensive capability, why was the request for defensive capability cut last year?

Secretary MARSH. Senator, I was of the view that the requests here for defensive capabilities had an increase. I may be wrong on that. I would like to furnish you additional material.

Senator HART. I wish you would, because the posture statement which we got yesterday morning in the middle of our hearing——

General MEYER. Is that the defense posture statement?

Senator HART. Yes.

General MEYER. That would be across all services. We can only speak for our own service.

Senator HART. It is under the category of "Deterrence of Chemical Warfare." It says, "In fiscal year 1981 procurement of defensive equipment was $72 million; in 1982, $174 million; and we plan $119 million for fiscal year 1983." That is a reduction from $174 to $119 since last year.

General MEYER. What figure did you quote for 1983?

Senator HART. 1983, $119.

General MEYER. $100 million of that is Army.

Senator HART. So Army is up?

General MEYER. All I would say is that we began a 5-year program 3 years ago in order to improve our defensive capability. There are also included dollars for demilitarization, which is a huge national problem, and also there are dollars for the binary facility.

Senator HART. General, I congratulate you on what you have undertaken here. Senator Nunn and I sort of led the charge 5 years ago to get that going, so I think you are absolutely headed in the right direction.

I am perturbed by that departmentwide reduction.

General MEYER. I will have to get the answer for that.

Secretary MARSH. Let us get further information on that.

[The information follows:]

CHEMICAL WARFARE

The fiscal year 1982 budget request of $125.8M for procurement of defensive equipment (OPA and ASF War Reserve) was substantially lower than the fiscal year 1983 request of $176M in OPA funds to fill a critical shortage of protective masks and shelters and to fund a one time procurement of a large quantity of the new M43A1 Chemical Agent Detector, thus raising the fiscal year 1982 procurement funds higher than funds programed for fiscal year 1983. The shortages and the one time requirement identified for fiscal year 1982 have been filled and do not warrant a similar level of funding for fiscal year 1983.

CHEMICAL PROTECTION SUIT

Senator NUNN. May I ask a question for the record here, Mr. Chairman? It is right on this point.

I just received information that there was an amendment passed last year affecting the Buy American Act and repealing some of the authority the Secretary of Defense had to waive that act when a two-way street was in NATO's interest and it affects this chemical protection suit that there has been competition on and so forth.

Could you furnish for the record, General Meyer, the effect of that amendment last year on the Army's chemical defensive capability, particularly that suit that I understand a manufacturer has developed?

Chairman TOWER. I would like to see that, too.

[The information follows:]

CHEMICAL DEFENSIVE CAPABILITY

The "Buy America Act" provided the Secretary of Defense an exception to buy chemical protective clothing from foreign manufacturers. The Army used the exception in fiscal year 1976 to purchase from the United Kingdom needed protective overgarments for USAREUR forces. Since 1977, four United States manufacturers have been under contract for the overgarment and no additional overgarments have been procured abroad. The amendment passed last year that repealed this exception did not affect the Army's NBC defense capability.

CHEMICAL WEAPON MODERNIZATION PROGRAM

Senator HART. Mr. Secretary, in the fiscal year 1981 supplemental appropriation bill, Congress directed the administration to provide studies of, among other things, long-range costs of a chemical weapon modernization program, a country-by-country report from the NATO alliance on their official views of their long-range program and an overview of the mission oriented requirement for binary weapons.

The bill noted the Congress views these requirements with the utmost concern and seriousness and fully expects them to be fulfilled prior to any future request for construction or funding of production of mission oriented binary weapons.

Have all these studies been completed and supplied to the Congress?

Secretary MARSH. Senator, I will have to get an answer on that. I am not sure.

Senator HART. If not, I hope your answer is expanded to include why not, and when exactly you would expect those conditions to be met. It is clearly in the law. If we follow the law, then it will be premature to vote the funds for this because we explicitly said in the 1981 supplemental that we would not do that.

[The information follows:]

BINARY WEAPONS

The report required by Public Law 94-106 and the Conference Committee Report Number 97-124 has been prepared and should be forwarded by the Secretary of Defense to the Congress in the very near term.

BINARY MUNITIONS

Senator HART. What plans does the Army have for deploying binary munitions in Europe, particularly in West Germany or Great Britain?

Secretary MARSH. There are no plans, to my knowledge, for the deployment of those weapons, Senator.

Senator HART. Are we making any current efforts to reach agreement with the Soviets on a comprehensive verifiable ban on chemical weapons?

Secretary MARSH. It is my understanding that those talks are somewhat stalemated now. To my knowledge, there has not been any significant progress in the talks. There have been a number of attempts to obtain an agreement, but currently the talks are not active, largely because of the attitude of the Soviet Union.

Senator HART. You know of no efforts on our part, or any plans to make efforts in the future to continue the talks?

Secretary MARSH. I, myself, am not aware.

General MEYER. We have discussed that with the Conference on Disarmament people and so on. That is one of the things that is on the back burner; it was bubbling but it is not on the front burner. The basic issue is verification.

STOCKPILES OF CHEMICAL MUNITIONS

Senator HART. One final question for either of you, but particularly General Meyer. Why, in your judgment, are current stockpiles of chemical munitions in Europe not more than sufficient to deter the Soviet first use?

General MEYER. I think the question is that they have been to this point in time; they have deterred the Soviets' first use, and they have deterred other nations' first use in the past.

The key is that they are getting old; they need to be replaced. In order to replace them we have to have something out there to take their place. That really is the heart of the issue.

Senator HART. I would observe, "out there" is a broad term. What you are going to do is replace those weapons already in a position to be used with new weapons that are not going to be in a position to be used and will compete in terms of airlift and sealift with all other military requirements?

General MEYER. I think that the ultimate issue, which the Secretary very properly pointed out, is that there is no plan at all whatsoever to do that, to move binary systems overseas. Again, speaking personally, that is an issue over the long term that has to be resolved between us and our allies. I don't know how that will work out. We do have the capability today, as you properly pointed out, to move it over there by fast airlift at a point in time when we need it there.

Senator HART. Thank you very much, Mr. Chairman.

Chairman TOWER. Senator Levin?

JOINT STRATEGIC PLANNING DOCUMENT

Senator LEVIN. The joint planning document has been referred to; does the Army have any problem in sharing that document with us?

General MEYER. Yes.

Senator LEVIN. Is that your own property or Department of Defense property?

General MEYER. It is JCS-Defense Department property, I am sure.

Senator LEVIN. Has the document ever been shared with anybody in the Congress?

General MEYER. To my knowledge, no. It is an internal document in which the Chiefs would lay out basic needs. Again, rather than

have it become politicized, it seems to me it is very important that clear, unbiased military advice be provided. I would worry that if you started to flash it around it would become politicized.

Senator LEVIN. We all remember DOD's description of the 30-second slide show that was flashed before the Defense Resources Board about this document. Prior to that slide show, was the document submitted to the Defense Resources Board?

General MEYER. It was submitted to members of the Defense Resources Board, yes, sir.

Senator LEVIN. How long in advance of that meeting was it submitted?

General MEYER. I will have to provide that for the record, but at least 3 months.

[The information follows:]

The Joint Strategic Planning Document fiscal year 1984-91 was distributed in September 1981, four months prior to the January 7, 1982 Defense Resources Board meeting.

FUNDING OF PROGRAMS

Senator LEVIN. You have indicated something about the gap between our new strategy and the 5-year defense plan to meet it. I want to ask you about the funding of the programs that are actually in the budget.

In your opinion, are those programs that are already in the budget fully funded?

General MEYER. No, they are not. The programs in the budget are not fully funded; they are resource constrained, as all programs are, if I understand your question.

Senator LEVIN. Do you have enough money in the budget to pay for what we say we are going to buy in that same budget?

General MEYER. The answer is, we believe so, but, again, it is subject to the indexes which we use for inflation being accurate.

Senator LEVIN. Other than that?

General MEYER. Other than that, and, again, I will assure you that there will be one or two cost overruns which will come up which we will find out too late to have put in the budget.

Senator LEVIN. I know that will happen. I am asking whether in your best present estimate, we have fully funded everything that is in the budget?

General MEYER. Yes, sir.

RESTATIONING PLAN

Senator LEVIN. Mr. Secretary, you were asked by Senator Humphrey about the restationing plan discussions which are going on with the West Germans. You indicated, according to our notes, that there has been some movement but not as much as you would have liked. Can you tell us how much movement there has been, specifically, and what additional movement you think is appropriate that has not yet been achieved?

Secretary MARSH. Senator, I believe the fact that we are having negotiations is the first significant movement. As I recall, there was some question of getting these negotiations underway, if I am not mistaken.

Senator LEVIN. The 12-month problem?

Secretary MARSH. There have been indications of a desire to talk about it. This is a situation where I am not privy on a day-to-day basis to the negotiations. I am not one of the negotiators; it is handled by someone else.

The Army keeps pressing for action, first for the appropriation, but we are also pressing for the German participation. I am simply reiterating the information that I have received that states that the Germans are addressing it and are meeting with our representatives on it.

LAND FORCES PARITY

Senator LEVIN. Let me see if I can summarize a difficult matter that the general and I spoke about before, whether we seek land force supremacy. Your answer was that that is not our present goal. Would you say it is a fair description that our present goal is to seek no less than equality or parity in terms of land forces?

General MEYER. In conjunction with our allies. I have to put that in the equation because there is no way I believe that we should or need to do it alone.

Senator LEVIN. In conjunction with our allies, that is our goal?

General MEYER. Yes.

Senator LEVIN. Are we achieving it now?

General MEYER. We do not achieve that now.

Senator LEVIN. When will we, under this 5-year plan?

General MEYER. Since I said it is in conjunction with our allies, I must leave a whole portion out. Hopefully, in the outyears. It depends on how well our allies are able to improve. Toward the outyears, we come closer.

Senator LEVIN. Thank you. The rest of my questions I will submit for the record.

Chairman TOWER. Mr. Secretary and General Meyer, thank you very much.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN TOWER

STRETCH-OUTS

Chairman TOWER. Do you consider stretching out programs to be an acceptable solution to the cost growth problem?

Secretary MARSH. Although this is not the most preferable solution, it is a method we often are forced to use. Stretching out programs does not "solve" program cost growth—in fact, it can be a direct contributor to cost growth. However, the Army has to make many judgmental decisions in its effort to field a balanced force. These decisions—premised on such items as program priorities, cost estimates, studies, and tests—result in the acceleration of some programs and the stretch-outs of others. In the past the Army, operating under severely constrained resources, deliberately stretched the production schedules of its major systems in order to maintain a balanced approach to modernization. The need to resort to such measures in the future has been ameliorated by the revitalized support given by Congress to Defense. A case in point is the fiscal year 1982 Budget, whereby, such systems as Blackhawk, Patriot, M-1, and FVS will experience increased rates of production. The fiscal year 1983 Budget will provide another opportunity to continue this positive trend. The alternative to stretch-outs is program kills—Roland being an example—with all of its concomitant impact on Defense readiness.

Chairman TOWER. Mr. Secretary, is the Army prepared to recommend termination of lower priority programs in order to fund higher priority programs that have suffered severe cost growth?

Secretary MARSH. Program cancellation is a viable method of developing funds, and it is considered whenever a cost growth or budget cut problem is encountered. The strategy is dependent upon the size of the cost growth and the budget/program years affected, e.g., a lower priority program may not generate sufficient offset funds in the years where the funding problem exists. Additionally, the Army must attempt to maintain a relative program balance between the high priority weapons systems and those necessary but lower visibility support items required for fielding and mission accomplishment.

COST GROWTH

Chairman TOWER. Mr. Secretary, the Army has suffered considerable cost growth in a number of its major weapons programs. The AH-64 Attack Helicopter, M1 Tank, Infantry Fighting Vehicle, HELLFIRE Missile and Patriot Air Defense System—to name a few—all have price tags now that far exceed your early cost estimates.

Disregarding the influence of inflation, how do you account for this chronic cost growth? What changes to the Army's acquisition process have been initiated in order to control this cost growth; and what assurances are you prepared to give the congress that you will be able to control cost growth in the future?

Secretary MARSH. Cost growth is a multi-faceted problem and we haven't managed in some areas as well as we should. Some of the basic factors that have led to chronic cost growth are lack of stability in our programs, a poor flow of timely information to senior managers, infrequent and inaccurate estimates, and a failure to properly estimate the risks of transitioning from development to production.

To assist us in controlling costs, the Army is implementing the initiatives recommended by the Cost Discipline Advisory Committee with a target date of June 1982. Some of the major actions coming out of this effort are an upgrading of our cost estimating methodology, a monthy report to senior managers of the program manager's personal assessment of his program, and an attempt to improve our Selected Acquisition Report system. We are creating a list of stable programs, working toward multiyear procurement and are investigating the risks and causes of the cost growth we traditionally experience as we transition from development to production.

The Army is firmly committed to cost control and I believe I can assure you that the initiatives being implemented by the Army now will lead to better cost discipline in the future.

TERMINATION OF PROGRAMS

Chairman TOWER. Mr. Secretary, last year the Congress terminated the SOTAS program when its cost doubled in just a year. There are many who believe that if the Army was managing its major weapons systems responsibly, the decision to terminate would have been made not by Congress but by the Army.

Do you feel that all of the Army's modernization programs are so vital that they should be continued—regardless of how much the costs grow?

Secretary MARSH. Program cost growth is a problem which we must solve, and we have taken action to do just that. There is no modernization program which is so important as to permit unchecked cost growth. Modernization programs represent, however, solutions to deficiencies which must be corrected. The termination of a program for cost growth means that a new solution must be found to correct the deficiency.

Chairman TOWER. If not, at what point will the Army recommend termination of a program as a result of cost growth?

Secretary MARSH. The point at which program termination is determined to be the answer to solving a cost growth problem is a function of the mission area deficiency, the program's status in the development process, fiscal guidance, and the availability of other solutions. Through our emphasis on improving cost discipline, our aim is to identify cost growth problems earlier in the terminations.

MANAGEMENT RESERVES

Chairman TOWER. Mr. Secretary, in an effort to insure that major programs are properly funded—such as the AH-64 Attack Helicopter—the Army has apparently

added a "management reserve" to certain programs. These funds would be used to absorb unanticipated cost growth.

Which programs have received this management reserve? Is this approach preferred over realistically and accurately estimating program costs; and does the availability of such a reserve fund encourage contractors to raise their prices in negotiations?

Secretary MARSH. For major systems in research and development, the Army employs a concept of cost estimating which considers risk—Total Risk Assessing Cost Estimate (TRACE). The intent is to have budgeted sufficient funds to conduct the program at the most realistic cost estimate, thereby providing funds for technical uncertainties which invariably appear during development. In the fiscal year 1983 budget, the following systems RDTE costs were generated under the TRACE concept:

COBRA TOW.
Army Helicopter Improvement Program (AHIP).
Patriot ECCM Enhancement.
Heliborn Missile—HELLFIRE.
Pershing II.
Tank Systems Integration.
Tactical Multichannel Communication.
Modular Integrated Communication and Navigation System (MICNS).
Position Location Reporting System (PLRS).
Remotely Piloted Vehicle (RPV).
NAVSTAR GPS.
Tactical Satellite Communications System.

The Army uses this costing concept for major systems since it recognizes the uncertainties of development and provides funds to sustain the program which would otherwise be delayed while awaiting approval of additional resources. Since the funds for technical uncertainty are controlled at the departmental level and are released to the program manager only for justified reasons, we do not believe there should be an impact on contract negotiations.

9 MILLIMETER HANDGUN

Chairman TOWER. Mr. Secretary, last year the committee learned of the Army's intention to replace the .45 caliber handgun with a 9 millimeter weapon. This effort was to have been initiated with a reprograming effort which would have been "below threshold" and therefore would not require Congressional approval. Is it the Army's current intention to replace the .45 caliber handgun; what steps will be taken in the near future in this effort; and is this effort fully funded in the army's fiscal year 1983 budget?

Secretary MARSH. The Army on 19 February, in its role as the Defense Department executive agent for 9mm handgun procurement canceled the procurement. It was not possible to make an award because the submitted weapon samples of all offerors had substantially failed to meet the essential requirements contained in the procurement solicitations.

As the executive agent, the Army must now coordinate closely with OSD and the other services to review alternatives which will satisfy the congressional mandate to standardize handguns and meet the requirements of the military services.

GUARD AND RESERVES

Chairman TOWER. Mr. Secretary, in your statement you referred to your support for the Total Army Concept—one that includes the Army National Guard and the Army Reserve. This committee is well aware of the deficiencies in the equipment of our Guard and Reserve units. To begin rectifying some of those deficiencies, this committee authorized $50 million last year for the procurement of new weapons and vehicles for those forces.

What initiatives are in this budget to address the condition of equipment in the Guard and Reserve units?

Secretary MARSH. Procurement requirements for the National Guard and the Army Reserves are an integral part of the Total Army requirements generation process as the budget for a given fiscal year is developed. Distribution of equipment to both Active and Reserve Components is made 2 to 3 years after procurement funds have been allocated by Congress. Distribution of equipment is based upon priorities in existence at the time items are received, with the exception of dedicated procurement as specified by either Congress or the Army. Also, the 15 Feb. 82 Annex to Volume II, Force Readiness Report, being submitted to Congress required

by the fiscal year 1982 Defense Appropriations Act, describes in detail exactly what equipment is going to the National Guard as a result of procurement and other distribution actions for the fiscal years 1982–85 time frame.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

EQUIPMENT FOR THE NATIONAL GUARD

Senator THURMOND. Mr. Secretary, the Guard and Reserve make up half of the Total Force, yet there is no money requested for procurement for equipment for the National Guard. Last year Congress added $50 million to the budget for such equipment. Why was equipment for the Guard omitted?

Secretary MARSH. Procurement of equipment for the Army National Guard has not been omitted from the fiscal year 1983 budget. Although no funds have been specifically earmarked for either the National Guard or Army Reserve, both Reserve Components will realize additional equipment from the fiscal year 1983 funding request. This additional equipment will result both from direct distribution of new procurement and from redistribution of items from higher priority Active and Reserve Component units based on total force distribution priorities at the time fiscal year 1983 procurements are delivered. The Army is currently developing initiatives which will result in assignment of higher priority missions to the Reserve Components, wherever practicable, with commensurate higher priorities for equipment distribution. Examples of higher priority missions in process or being considered are the Rapid Deployment Force and expansion of the round-out unit program.

Senator THURMOND. Mr. Secretary, would you support any action by the Congress to add funds to the budget for equipment for the Guard?

Secretary MARSH. The fiscal year 1983 budget request represents a balanced program with respect to the total Army force and within the resources available. It is designed to provide essential flexibility in responding to national security interests and to insure the capability of fighting on a sustained basis. Procurement funding in the budget provides a balance between modernization, readiness and sustainability of the total force. Major items of equipment and associated support items procured with the requested fiscal year 1983 funds will be distributed equally throughout the total force based on priorities by which units, regardless of component, are scheduled for deployment into combat.

I would find it difficult to support any proposal that would add funds intended to provide additional equipment to a specific component of the Army. To do so portends disturbance of the context in which the total budget has been structured and the balanced support of Army needs.

I further urge that the committee not consider directing funds to specific components of the Army by means of establishing and funding additional procurement appropriations. To do so tends to degrade the program balance noted above. Additionally, major equipment items should be funded with necessary spares and other logistical support. In this manner, proper support will be provided when equipment is fielded and the Army will be able to continue both ongoing and planned procurement efficiencies.

Senator THURMOND. Mr. Secretary, in a hearing last week on the AH–64, Mr. Ambrose stated that the Army would not sign the contract until the costs had been discussed further. One on the largest areas of difference was the Army's estimate of the number of hours necessary to build the aircraft versus the estimate by the contractor. What are the latest developments in these negotiations?

Secretary MARSH. Fact finding on the Hughes proposal for establishment of a should-cost position is essentially complete. Negotiations of the statement of work have also been completed and the terms and conditions for the final contracts are under discussion. The contractor's revised cost proposal incorporating the results of the fact finding and SOW negotiations is expected on 20 or 21, February. Formal cost negotiations will start in early March following receipt of the should-cost business clearance. It is anticipated that negotiations will be completed and resolution achieved by 31 March 1982.

FORCE STRUCTURE

Senator THURMOND. Mr. Secretary, in your statement you inform us that you intend to modernize the current 24 division structure. You also list Reserve and Guard equipment shortages as $6 billion and $4 billion respectively. How many of our active divisions have roundout brigades, and what efforts are being made to modernize these units with current equipment?

Secretary MARSH. There are four Active divisions that have roundout brigades. the 25th Infantry Division, 7th Infantry Division, 5th Infantry Division Mechanized, and 24th Infantry Division Mechanized. Efforts are being made to provide these brigades with new current vintage equipment expeditiously. Distribution of new equipment generally follows Army priorities as defined in the Department of Army Master Priority List (DAMPL). This guides the issuance of equipment based on mission without regard to component. Thus, the Reserve component roundout brigades are integrated into the distribution plans and are designated to receive current vintage standard Army equipment items at approximately the same time as the Active component divisions which they roundout.

SOVIET IMBALANCE

Senator THURMOND. Mr. Secretary, according to your statement, the Soviets have achieved certain qualitative advantages over us. Would you elaborate on these imbalances and their implications?

Secretary MARSH. The Soviets have gained a qualitative advantage over the United States in certain weapon system categories. As a consequence, the deterrence mission capability of the U.S. Army has eroded.

The USSR/Warsaw Pact historically have maintained a significant quantitative advantage over U.S./NATO forces. Currently, even under optimistic scenario assumptions for Central Europe, the USSR/Pact possesses at least a 2:1 advantage in most weapon system categories.

U.S./NATO at one time partially offset this quantitative disadvantage by fielding qualitatively superior weapon systems. However, vigorous Soviet modernization efforts during the 1970's have resulted in fielded equipment in many weapon system categories qualitatively superior to that of the United States. Listed below is a summary of the qualitative rankings of current (IOC before 1 Jan 82) and future systems (IOC before end fiscal year 1988). The ratings are subjectively derived by comparing weapon system characteristics of the best U.S. system versus the best USSR system. The ratings do not take into account the relative quantity of systems fielded, training of personnel or doctrine of employment.

QUALITATIVE COMPARISON—BEST UNITED STATES VERSUS BEST U.S.S.R. INDIVIDUAL WEAPON SYSTEMS [1]

	Current advantage			Future advantage		
	United States	U.S.S.R.	Equivalent	United States	U.S.S.R.	Equivalent
Weapon categories:						
Tanks			X	X		
Field artillery (cannon)		X				X
Field artillery (rocket)		X				X
Armored vehicles (personnel)		X		X		
Air defense SAM			X	X		
Air defense guns		X				X
Antitank guided missile systems			X			X
Attack helicopters (ATGM)			X	X		
Surface-to-surface missiles			X	X		

[1] Not a force-on-force comparison.

The above chart does not convey the fact that many newer U.S. systems, (e.g., M1, ITOW, AH-IS(FM) have been produced in limited quantities and/or not deployed to Europe, whereas the Soviets have fielded their quality systems in quantity. Listed below is a qualitative comparison of U.S. verus USSR systems fully fielded in Europe, and the projected dates U.S. modernized systems are programmed to be fully fielded in Europe. However, the Soviets are outspending the United States in RDTE at a ratio of 2 or 3 to 1, are developing a new series/follow-on weapons, and will probably [deleted].

QUALITATIVE COMPARISON—U.S. FORWARD DEPLOYED EUROPE VERSUS OPPOSING SOVIET FORCES

Weapons categories	United States	Current advantage	U.S.S.R.		Date deployed [1]
Tanks			X	M1	
Field artillery (cannon)			X	Copperhead/C[2]	
Field artillery (rocket)			X	MLRS	
Armored vehicles (personnel)			X	IFV/CFV	
Air defense SAM		Equivalent		Patriot	[Deleted.]
Air defense guns			X	DIVAD	
Antitank guided missile systems			X	ITOW/TOW 2	
Attack helicopters (ATGM)			X	AHIS (FM)/AAH	
Surface-to-surface missiles		Equivalent		PII	

[1] Date U.S. modernized systems fully deployed.

DOCTRINE DEVELOPMENT

Senator THURMOND. Secretary Marsh, according to your 1983 budget submission, the Army is requesting $17.8 billion for procurement of weapons systems, and about $1.9 billion for training. A portion will be spent for doctrine development. The latter is the set of techniques and tactics associated with the use of the new weapon systems. How much of this money is spent on training on older systems and how much is spent on doctrine development, associated with the new weapons systems?

Secretary MARSH. The $1.9 billion you refer to is for individual training and is composed of $0.9 billion for the conduct and support of individual institutional training, and $1.0 billion for the required base operations and real property maintenance to support the installations where the Army's institutional training is conducted.

The fiscal year 1983 budget request includes $76 million for the conduct and support of institutional training directly related to the introduction of new equipment and weapon systems. $46 million of the request provides the resources required for the development, production, updating, and distribution of doctrinal and training publications.

Senator THURMOND. Mr. Secretary, where is the money that is allocated for doctrine development being spent—is it being spent by the user or by the developer or both, and if by both, in what proportion?

Secretary MARSH. The U.S. Army Training and Doctrine Command (TRADOC) has the mission of developing doctrine for the Army. The dollars included in the Army's budget request for doctrine development are for Headquarters, TRADOC and the various Army service schools and centers where doctrine development is accomplished.

Senator THURMOND. Mr. Secretary, have the users of the new weapons systems been asked whether the funds earmarked for training and for doctrine development are sufficient for that purpose? Is there a discrepancy between their need and what they are expected to get? If so, what is that discrepancy?

Secretary MARSH. The users are asked annually if the funds earmarked for training and for doctrine development are sufficient. They are key players in the Army Modernization Information Memorandum/Modernization Resource Information Submission (AMIM/MRIS) process which was established to estimate operation and support resource requirements for new systems.

The Army Modernization Information Memorandum (AMIM) captures all pertinent data needed to successfully field and operate the new or modernized systems. This document provides information regarding equipment description; input on organization and personnel; training and doctrine; supply; maintenance; facilities; and fielding support costs. The combat developer (Training and Doctrine Command, TRADOC) and materiel developer (Materiel Development and Readiness Command, DARCOM) are the principle sources for AMIM data. The AMIM is reviewed by the Army staff prior to distribution to the field.

The Army Modernization Information Memorandum provides the user commands and supporting commands with the major system costing factors needed. Major command peculiar factors are added locally. Major commands develop zero based resource estimates to support the fielding of their new systems. These estimates are recomputed each year for the 5 year defense plan.

Major command cost estimates are reported to the Department of the Army on the Modernization Resource Information Submission (MRIS) as part of the Program

Analysis Resource Review (PARR). Major commands identify the cost of supporting the new or modernized equipment, the cost of removing the old or replaced equipment, and cost savings resulting from not operating equipment being replaced.

At this time it is anticipated that fiscal year 1983 funds for training and doctrine development will be sufficient to satisfy user needs.

Senator THURMOND. Mr. Secretary, is there a management mechanism at the Department of the Army level to insure a balance between funds earmarked for weapon systems development and funds for doctrine development?

Secretary MARSH. Yes. The Modernization Resource Information Submission (MRIS), which I just described, is the management mechanism. Annually, during the program and budget development cycle, all commands submit the operating and support cost estimates related to the introduction of new equipment and weapon systems.

This submission is reviewed at Headquarters, Department of the Army to insure a proper balance among development, procurement, and operation and maintenance accounts.

QUESTIONS SUBMITTED BY SENATOR WILLIAM S. COHEN

READINESS

Senator COHEN. Secretary Marsh, you speak in your statement of improvements in readiness. I know that in September of 1980, six of 10 Army combat divisions stationed in the United States were declared not fully ready to fight. They were, according to the Army's evaluations, deficient in personnel, equipment, or training.

What are the readiness ratings of U.S.-based divisions today? If their readiness is improved, what are the major factors in that readiness improvement?

Secretary MARSH. Significant improvement has been made in the unit status ratings of the 10 Forces Command Active Army divisions since September 1980. This can be primarily attributed to reducing senior grade shortfalls. Unit status ratings of the 10 Forces Command divisions are listed below [Deleted.]

Over the past fiscal year, the Army's successful recruitment and reenlistment programs have led to higher end strength and higher standards for reenlistment.

Since September 1980, improvements of from two to 20 percent in senior grades have been noted within Forces Command major units. Improved retention, coupled with more rapid promotion, particularly in combat arms specialities, provided the basis for improvement. Forces Command senior grade fill is currently at 96 percent. The senior grade increase, coupled with the continued professional development of the noncommissioned officer corps, has provided the critical leadership and supervision needed to upgrade and sustain all facets of unit operations. Further improvement is predicated on the successful implementation of the Army's Force Alignment Plan which is designed to provide better grade and skill match and to eliminate the 5,900 combat arms senior grade shortages.

The qualitative and quantitative improvements in our personnel posture will continue to have a positive effect on equipment readiness and training which impact on unit readiness. Training programs were upgraded with development of the following initiatives: expanded and toughened initial entry training; continually upgrade and improved noncommissioned officer education and training; established the National Training Center, Fort Irwin, California; developed and implemented the Battalion Training Management System; increased participation in joint and combined exercises; and developed and procured training devices and simulators to support the training associated with the fielding of new weapons and equipment.

UNIT STATUS OF FORCES COMMAND DIVISIONS [1]

Unit	Authorized level [2] of organization	Overall C-ratings [3]
82d Airborne Division	1	[Deleted.]
9th Infantry Division	2	
101st Airborne Division (air assault)	2	
24th Infantry Division (mechanized)	1	
1st Infantry Division (mechanized)	1	
2d Armored Division	1	
4th Infantry Division (mechanized)	1	
1st Cavalry Division	2	

UNIT STATUS OF FORCES COMMAND DIVISIONS [1]—Continued

Unit	Authorized level [2] of organization	Overall C-ratings [3]
7th Infantry Division	2	[Deleted.]
5th Infantry Division (mechanized)	1	

[1] Data as of January 15, 1982.
[2] It is important to understand that the Army does not resource all its units at a level where the unit can attain a "fully combat ready" or "C–1" status. We resource the bulk of the Army at lower authorized levels of organization (ALO) to maximize prudent use of resources (manpower spaces, personnel, and equipment). As a result, we do not expect those units in peacetime to attain a "C–1" status.
[3] C–1 combat ready. C–2 combat ready, minor deficiencies. C–3 combat ready, major deficiencies. C–4 not combat ready.

Senator COHEN. Secretary Marsh, you emphasized the importance of the total Army, including the Active Force, the National Guard and Reserve, and the civilian workforce. A year ago, General Meyer and you told our committee that President Reagan's freeze on government hiring was hurting the Army's ability to fight. You described the Army's civilian shortage as a "major concern of mine." Could you tell of the current status of the civilian force as a factor in readiness?

Secretary MARSH. In fiscal year 1981/1982 the Army increased its civilian workforce by 21,800 primarily to reduce borrowed military manpower and other troop diversions in order to return solidiers to their units and thus help improve individual and unit training and readiness. We also reduced the depot maintenance backlog and meet requirements associated with both supply and contract administration.

There is a provision to increase about 3,200 civilians in the fiscal year 1983 President's Budget which will keep depot maintenance backlog growth at zero level, maintain borrowed military manpower at an acceptable level, support POMCUS sets 5 and 6, improve military construction capabilities to meet the urgent need for replacement and modernization of Europe's aging and deteriorating facilities, and initiate a modest civilian substitution program through the conversion of military in support functions to civilian positions and the assignment of released military personnel to other higher priority force structure needs.

The Army must seek further increases in the size of its civilian workforce in order to offset the existing shortfall in peacetime requirements in support of modernization and expansion. Although we have adjusted internally to address some of our most pressing issues, real growth over the next five years will create demands for additional civilians in selected areas despite productivity increases and contracting initiatives.

RESERVE STRENGTH

Senator COHEN. I agree with you, Secretary Marsh, that we must increase our pretrained manpower pool. The Reserves have, I believe, shown some increases in each of the past two years. Is that correct? How much farther do we have to go to bring the Reserves up to sufficient strength? And what initiatives are you proposing to continue bolstering the Reserve?

ARMY NATIONAL GUARD

Secretary MARSH. Congressional support of additional programs to increase the strength of the ARNG has been consistent in recent years and is assured during fiscal year 1982. Recognition by congressional members and staffers of the increased reliance of the Total Army Force on the Reserve Components has significantly contributed to the increased awareness of ARNG manpower requirements.

ARNG fiscal year 1981 Paid End Strength rose by 22,424 from that at end fiscal year 1980 to reach an fiscal year 1981 total of 389,009. Successful efforts in recruiting, reenlistment, and attrition management caused strength to rise 3,233 above the budgeted level of 385,776.

The Guard entered fiscal year 1982 with a paid end strength 57,091 below the fiscal year 1982 wartime requirement of 446,100. However, with expanded incentives and a larger recruiting and retention force, paid strength is projected to be 398,016 for fiscal year 1982, an increase of 9,007. This upward trend should continue with the resources identified in the fiscal year 1983 President's Budget request, i.e., incentive programs, an affiliation bonus program for prior service enlistments, and further expansion of the recruiting and retention force. Based on these anticipated improvements, fiscal year 1983 paid strength is projected at 417,019 an increase of 28,010 over actual end strength for fiscal year 1981. Wartime strength requirements are programed to be met by 1986.

ARNG PAID STRENGTH

	Fiscal year 1981	Fiscal year 1982	Fiscal year 1983
Wartime required	444,200	446,100	447,600
Requested average strength	371,300	392,800	407,400
Congressionally authorized average strength (floor)	371,300	392,800	.....
Budgeted end strength	385,776	398,016	417,019
Actual end strength	389,009	.....	.....
Difference	+3,233	.....	.....

USAR

Congressional support of additional programs to increase the strength of the USAR has been consistent in recent years and is assured during fiscal year 1982. Recognition by congressional members and staffers of the increased reliance of the Total Army Force on the Reserve Components has significantly contributed to the increased awareness of USAR manpower requirements.

In fiscal year 1981, success in recruiting and retention, amplified by the effect of enlistment/reenlistment bonuses, produced an increase in USAR paid strength of 18.588 to 225,214. Despite this success the USAR began fiscal year 1982 60,586 below the fiscal year 1982 wartime requirement of 285,800.

Capitalizing upon the effectiveness of USAREC in the USAR recruiting market and expansion of current bonus programs, total Selected Reserve strength for the USAR is projected to reach 251,849 by year end fiscal year 1982. The upward strength trend is programed to continue in fiscal year 1983 to reach an end strength of 268,531. Wartime strength requirements are programed to be met by fiscal year 1986.

USAR PAID END STRENGTH

	Fiscal year 1981	Fiscal year 1982	Fiscal year 1983
Wartime required	[1] 295,200	285,800	287,400
Requested average strength	204,500	235,300	258,700
Congressionally authorized average strength (floor)	204,500	235,300	.....
Budgeted end strength	219,538	251,849	268,531
Actual end strength	225,214	.....	.....
Difference	+5,676	.....	.....

[1] The decrease of 9,400 between fiscal year 1981 and fiscal year 1982 resulted from adjustments in USAR training division structures.

INCENTIVES

A variable enlistment bonus was implemented on 1 October 1981. For enlistment in a designated unit, either $1500 cash or $4000 educational assistance is available. For selected skills a $2,000 cash bonus or $4000 educational assistance benefit is available. A one-time only conversion either way between the cash bonus and educational assistance is authorized. Only High School Diploma Graduates, Mental Category I–III may enlist for incentives. Bonus skills authorized the Selected Reserve include: Career Management Field (CMF) 11, 12, 13, 16, 19, 91, 95B. In addition, CMF 31 for the ARNG and CMF 54 and 98 for the USAR are authorized bonuses.

Senator COHEN. Secretary Marsh, our reserve forces have been found with shortages of equipment and have been forced to use antiquated equipment which would be inadequate on the battlefield. This may, in my view, be the greatest weakness in the Total Force. What is being done to supply our reserves with enough quality equipment?

Secretary MARSH. Equipment, both shortages and lack of modernization, is the greatest weakness in the Total Force. This weakness is not unique to the Reserve Components, although it is more pronounced in these forces due to many having lower priorities associated with their later deploying/employing missions. High pri-

ority mission Reserve Component units are provided equipment at the same distribution priority as comparable mission Active units. Constrained resources limit the pace at which lower priority Active and Reserve Component units can be improved.

Missions of many Reserve Component units have been changed recently to higher priority missions, such as the RDF support, which will enable them to better compete for scarce resources.

Without significant increases in procurements, any faster improvement of late deploying Active and Reserve Component units cannot be made except by shorting deployed and early deploying units.

STUDENT LOAN FORGIVENESS

Senator COHEN. Secretary Marsh, a couple of years ago, Congress approved a test program of student loan forgiveness in exchange for military service. I originated this legislation in the Senate, with the view that it would be especially attractive for young men and women considering Reserve service and needing the economic benefit as they leave college and begin their careers. As you know, Congress extended the program last year. Have you monitored this program, and can you tell me how successful it has been as a recruiting tool for the Reserves? What are recruiters doing to draw attention to this program?

Secretary MARSH. The Army offered Loan Repayment to qualified enlistees/reenlistees and extensions in the Selected Reserve during the fiscal year 1981 Educational Assistance Test Program. During this period (1 Oct. 80–30 Sept. 81) approximately 1,200–1,500 Selected Reserve soldiers were eligible for the program. Both the Army National Guard and Army Reserve are presently refining data to analyze the effects this program had on recruiting and retention. The Office of the Secretary of Defense requested Congressional funding for the entire educational test program but Congress did not provide necessary resources. Consequently, Army has not pursued loan repayment for Selected Reservists beyond 30 September 1981.

AWOL DECLINE

Senator COHEN. Secretary Marsh, I read in the Army Times that desertions are down to their lowest point since 1968. What are the Army's figures for this past year? And do you attribute the desertion and AWOL decline to the improved quality?

Secretary MARSH. The Army Times article reflected overall rates for all the military services to be lowest since 1968. Army figures for Fiscal Year 1981 show absence without leave and desertion rates per one thousand average enlisted strength to be 36.0 and 15.9 respectively. When combined for comparison the Army AWOL and desertion rates are the lowest since 1962. This can be attributed to emphasis on unit cohesiveness and stability, improvements in recruiting and reenlistment programs, enhanced quality of life initiatives and outstanding leadership at all levels of command.

QUALITY OF LIFE IMPROVEMENTS

Senator COHEN. Secretary Marsh, you cite the importance of improving quality of life for service personnel. What quality of life improvements do you call for in the fiscal year 1983 budget?

Secretary MARSH. We believe that quality of life issues, the living and working conditions of soldiers and their families, do have a direct impact on combat readiness and the commitment of soldiers to an Army career. In addition to appropriate compensation, a soldier's quality of life is determined by many considerations: housing, either barracks or family quarters; work conditions; adequacy of facilities maintenance; educational opportunities; community services; morale, welfare, recreation activities; and health care standards.

In the fiscal year 1983 budget request we have included $238 million for unaccompanied personnel housing construction; 46 percent of this is for Europe. We have requested $70 million for construction of a consolidated community center and 572 new family housing units, of which 313 are earmarked for Europe. We have requested $77 million for 11,371 family housing leased units to be occupied in Europe and anoher 1,275 to be occupied in other overseas locations. Additionally, we have submitted a request for another 5,612 lease authorizations overseas which will be ready for occupancy and require funding in fiscal year 1984 or fiscal year 1985. We have asked for $1,204 million for the repair and maintenance of facilities worldwide; of this $531 million is addressed for Europe which will reduce the long deferred back-

log of maintenance and repair there. We have requested $55 million for medical facilities construction, of which $29 million is for Germany.

We have asked for $180 million in fiscal year 1983 to provide modest improvements in the operating and equipping of community morale, welfare, and recreation services worldwide. We have asked for $32 million for construction of facilities in this area, yet many deficiencies and a sizeable backlog will remain.

Much of our resources are focused on Europe to begin correcting the inadequate living and working conditions there. The overcrowded barracks, lack of family housing, and inadequate facilities in Europe are a special concern for three reasons: they reduce readiness; they hamper retention; and they send the wrong signal to allies and potential enemies about our capabilities and priorities.

Senator COHEN. Secretary Marsh, the Manpower Subcommittee staff has reported that the quality of housing and working conditions for personnel stationed in Korea is abysmal. Are you personally aware of the situation? What is the Army calling for to improve this situation?

Secretary MARSH. Yes I am. The Army is working on improving this situation with the $48.5 million requested and appropriated in the fiscal year 1981 and 1982 military construction programs for Korea. The $36.5 million for troop housing and $12 million for maintenance facilities projects to improve working conditions are either under construction now or will be shortly. The effort continues in the fiscal year 1983 Military Construction Program for Korea where the Army is requesting $8.7 million for troop housing and $24.5 million for maintenance facilities to improve working conditions.

IMPROVING TRAINING AND UNIT COHESION

Senator COHEN. General Meyer, I know that you have placed a high emphasis on improving training and unit cohesion. What is the status of efforts to strengthen these two areas?

General MEYER. To improve training at the entry level, the Army has recently expanded its Initial Entry Training for officer and enlisted personnel. The Officer Basic Courses are in the process of being expanded an average of four weeks. Enlisted initial entry training has been expanded one week with increased emphasis on soldier and basic combat survival skills.

To improve training for our Officers in their 6th-9th year of service, in staff skills at the division level and below, the Army has implemented the Combined Arms and Services Staff School (CAS3). CAS3, Fort Leavenworth, graduated its first class of 117 officers on 26 January 1981. The Army has also placed emphasis on NCO training through the Noncommissioned Officer Education System NCOES), "the train the trainer" program. In October 1981 the Army began training its senior NCOs to be first sergeants at Fort Bliss, Texas. An initiative is underway to identify additional skill level training needs for existing Primary Technical and Basic Technical Courses (PTC/BTC) given to Combat Support/Combat Service Support NCO's.

Initiatives underway to improve unit training include the Battalion Training Management System (BTMS), designed primarily to train unit officers and NCOs to plan, conduct, and evaluate performance-oriented training; and the Training Management Control System (TMACS), an automated aid designed to help unit commanders evaluate resource impacts on training plans and record training accomplished and resources actually used. The Army is also implementing a Standardization Program to ensure that common operational, tactical, logistical, administrative, and training tasks, drills, and procedures will be performed in a single prescribed manner throughout the Total Army.

Also, in fiscal year 1983 the Army will improve local training areas and begin an extensive modernization of ranges. Improved training devices such as the Multiple Integrated Laser Engagement System (MILES), Flight Simulators, and simulations (war games) will help sustain a level of training proficiency needed for readiness. More realistic training will be provided to those units which will exercise force-on-force training at the National Training Center.

A major initiative to improve unit cohesion in the Army is Project COHORT (Cohesion, Operational Readiness and Training). COHORT is a pilot program, a first step towards training soldiers together, keeping them together as a company, and when required, assigning them overseas as a company, rather than as individual replacements. Eighteen of the 20 companies in the test program have been organized and received Initial Entry Training already, Eleven COHORT companies will deploy overseas between October 1982 and February 1984.

ARMY'S MOBILIZATION CAPABILITY

Senator COHEN. General Meyer, what steps have been taken in the past year to improve the Army's mobilization capability?

General MEYER. Many of the actions reported in the Army Posture Statement contributed to improve the Army's capability to mobilize. An overview of some of those and other significant activities is listed below. It is important to also mention that a significant amount of time and effort has been and is being expended to develop and improve plans for mobilization at all levels of the Army structure. These planning activities culminate in more effective policies and procedures which are not usually mentioned in concise reports as this but they are significant contributions to improving the overall mobilization capability. Actions:

Completed development of the Army Mobilization and Operations Planning System (AMOPS) which consolidates Army policies, procedures and guidance for mobilization and deployment planning and execution by subordinate commands and agencies in a single source set of four volumes.

Continued a comprehensive incentives program to improve the level of manning and retain qualified personnel. The Army National Guard and Army Reserve recruited successfully over 100 percent of their peacetime objectives. Significant shortages still exist, however, in the Total Wartime Force.

Continued to increase the number of full-time military personnel in Reserve Component (RC) units. In fiscal year 1981, 5,036 full-time manning spaces were used to resource approximately 1,400 RC units.

Continued to expand the number of Reserve Component units participating in the Affiliation Program to the current level of 300 units.

Army National Guard and Army Reserve unit participation in training exercises increased. Over 200 units participated in contingency and mission oriented training, many in the overseas areas where they would deploy, in fiscal year 1981.

Implemented an Individual Mobilization Augmentee Program in which trained Individual Ready Reserve personnel who can be mobilized under the 100,000 callup authority are identified as augmentees for Active Component units and organizations.

Preassignment orders for approximately 85,000 selected retired Army personnel were mailed during Nov-Dec 1981.

Prepared proposed legislation to increase the current military service obligation from 6 to 8 years for all services.

Training base cadre have been increased to improve the capability to accept initial inductees during mobilization. The overall capability of the mobilization training base remains constrained, however, by shortages of equipment, ammunition and billets. Some of this requirement is included in the Army Program.

Completed refurbishment of 98,700 M-14 rifles for backup training for the mobilization training base expansion.

The first increment of 101 new heavy duty railroad flatcars for prepositioning at Army installations was delivered in July 1981.

Increased the funding in the Army Program for maintenance of government-owned reserve industrial facilities and ammunition plants.

Senator COHEN. General Meyer, you speak in your statement of plans to move toward mobile units, a force which is light in weight, yet substantial in capability. This is something which a number of us in the military reform caucus have had an interest in. What actions are you taking to create the more flexible force to which you refer?

General MEYER. Some 18 months ago the Army established the High Technology Test Bed at Fort Lewis, Wash. Its purpose is to validate, operational concepts, and develop the organizations and materiel needs of a new division called the High Technology Light Division (HTLD). The operational concepts for the HTLD are based on the precepts of the Air Land Battle doctrine. They require highly mobile, light, yet lethal units conducting maneuver warfare of a highly fluid battlefield.

In order to validate these concepts an extensive evaluation program has been developed extending from fiscal year 1981 through fiscal year 1988. That program peaks in fiscal year 1984, fiscal year 1985 and fiscal year 1986 and then closes out in fiscal year 1987 and fiscal year 1988. The Army's objective is to field the first prototype HTLD in fiscal year 1985.

The HTTB program is an integrated effort of three major Army commands (Training and Doctrine Command, Materiel Development and Readiness Command, and Forces Command) and the 9th Infantry Division. The Army is working closely with the U.S. Air Force and the U.S. Marine Corps in developing the HTLD. Both services are providing full time liaison officers for this project. In addition, New Zea-

land, Australia, the United Kingdom, and Canada are providing full time special project officers.

This is a highly complex program. It presents the Army with unique challenges in force development, materiel requirements and acquisition, training and discipline, command and control, and the whole spectrum of military intelligence. This project is one of the Army's highest priorities.

Questions Submitted by Senator Roger W. Jepsen

LOGISTIC FORCE STRUCTURE

Senator Jepsen. Mr. Secretary and General Meyer, you allude on page 19 of the need to upgrade the logistic force structure through the creation of more combat support and combat service support units. The need for greater logistic support is implicit also in the new Army doctrine embodied in the air-land 2000 concept.

Do you feel that the logistic force structure can be expanded in a timely and effective manner to support the planned force structure of 26 divisions by the late eighties to carry out the operations defined by the maneuver-style doctrine?

General Meyer. In the Army Force Program for fiscal years 1983–1987, the logistic force structure is being expanded by the activation of 33 active component units (6,000 personnel). There are also minor increases in the Reserve Component structure. Although these units will provide minimal logistics support to a 26-division force, [deleted.]

A conscious decision, given constrained resources, has been made to accept the risk associated with this structure shortfall and to place increased reliance on host nations to provide a portion of the additional units/resources required. A study to determine ways to improve productivity of logistical units and thus reduce manpower requirements has been initiated.

Senator Jepsen. What are your requirements in terms of units and personnel for new support and service support formations?

How do you plan to meet the requirements?

General Meyer. After considering host nation support and the fiscal years 1983–1987 programed force, the Army will still have a [deleted.] The Army has placed these shortfalls in priority so that as resources become available, the needed units can be programed. In addition, type unit shortfalls which could be easily equipped from the civilian sector (off the shelf) have been identified in order to meet some of these requirements rapidly upon mobilization. Since the support shortfall will not be eliminated in the fiscal years 1983–1987 program, it will receive priority consideration in future programing periods.

SPECIAL DEFENSE ACQUISITION FUND

Senator Jepsen. Mr. Secretary and General Meyer, you mention on page 36 of your statement that recent congressional approval of the Special Defense Acquisition Fund (SDAF) will allow the Army to lessen degradation to readiness caused by withdrawals and diversions of equipment to fill unprogramed foreign requests.

What specific procurement initiatives do you plan to undertake with these funds? What are the most serious threats to readiness in this area that must be addressed?

Secretary Marsh. Specific items to be procured for the SDAF are to be determined by the Defense Security Assistance Agency, and this decision has not yet been made. The Army has provided a recommended list of items, however, the final determination of specific equipment and quantities are dependent upon fund availability and Congressional authority for expenditure. The following equipment, plus associated ammunition, and ancillary equipment are included on this listing: M60A3, Tank; M113A2, Personnel Carrier; M109A2, Self-propelled Howitzer, 155mm; M198, Towed Howitzer, 155mm; M813A1, 5 Ton Truck; ¼ Ton Truck w/ TOW Missile System; Chaparral Fire Units; UH60A, Blackhawk Helicopter; AH1S Helicopter Components; and AN/PRC–77 Radio.

The most serious threats to readiness center around the need to withdraw or divert equipment from its intended use in filling U.S. active and reserve component requirements. This creates shortages or the need to continue use of old, less effective systems. Where diversion affects initial fielding to units, there is generally slippage to all subsequent units. This results in a loss of capability in the entire force, until payback occurs. For example, the Army might lose three battalions of TOW capability for 21 months. A final impact is the disruption of planned actions, such as parts procurement, personnel assignments, and use of training areas.

The alternative to this is withdrawal or diversion, with appropriate approval, from War Reserve Stocks.

Specific impacts upon readiness vary with the system and are dependent upon a number of factors. These include the quantity of items required, the essentiality of the equipment to the unit's mission performance, the point in the item's life cycle at which diversion occurs, the procurement status, and the status of overall fill against U.S. requirements.

To avoid or reduce these adverse impacts, we support SDAF and will be working closely with DSAA regarding its development.

TUITION ASSISTANCE

Senator JEPSEN. Secretary Marsh, I know that some States provide tuition assistance to members of the National Guard. Do you feel that this assists in National Guard recruiting and retention?

Secretary MARSH. State tuition assistance provides a real incentive for an individual to join and remain in the National Guard. Reports from the recruiting personnel in the field indicate considerable interest in the State tuition assistance programs, especially among those high quality individuals who have high school diplomas and who look forward to eventually attending college. Further, in most States offering assistance, retention is enhanced because the assistance is restricted to current members of the Guard and is often limited to a dollar amount based on years of Guard service. It is important to understand that at present only 31 States offer tuition assistance to National Guard members and of these States, eight provide 100 percent tuition; however, with the rapid and continuous rise in college costs and the anticipated reductions in grants and scholarships, State tuition assistance should become an even more powerful tool in recruiting and retaining quality individuals.

FUNDING CONSTRAINTS

Senator JEPSEN. General Meyer, should the Army experience funding constraints in near-term fiscal budget years of fiscal year 1984-86, would you elect to reduce the Army's force structure rather than reduce the Army's modernization efforts in procurement?

General MEYER. To accommodate reduced funding levels, the Army would consider two fundamental options. First, we would be forced to consider a smaller Army, including deployed forces—fewer brigades and/or divisions and less end strength—to protect essential readiness and modernization. The second option would be to maintain force levels and military end strength and accept the Army with older, less threat-capable equipment; slower modernization and equipment fill rates; and a reduced sustainability build-up. [Deleted.]

EDUCATION INCENTIVE

Senator JEPSEN. General Meyer, do you see a need for additional education incentive beyond the current programs—for example, a version of one of the pending GI bills before the Congress?

General MEYER. Yes. The Army needs a long term GI bill which would be a non-contributory post-secondary educational assistance program aimed at recruiting high school graduates, retaining quality personnel, and promoting military service as a professional career. Such a program would require an Army-only differential to allow the Army to attract its fair share of quality enlistees in relation to the other services.

GI BILL

Senator JEPSEN. General Meyer, in light of the successful trends in recruiting and retention that the Army is currently experiencing, do you see a near term need for passage of the GI bill?

General MEYER. The Army needs a GI bill with an equalizer to commence as soon as practicable to provide an entitlement for honorable service which helps in recruiting and retaining quality personnel in addition to promoting the military as a professional career.

Questions Submitted by Senator Dan Quayle

CHEMICAL WARFARE

Senator Quayle. Would you briefly summarize the Soviet capability in chemical warfare, including both their offensive and defensive postures?

General Meyer. First, let me say that the Soviets possess a modern, versatile, and powerful offensive chemical warfare capability obtained by mating highly effective chemical agents with modern delivery systems. The Soviet chemical-capable weapon systems give them the means to deliver chemical agents from the forward edge of the battle area to depths limited only by the ranges of missile and aircraft systems.

The Soviets have available a variety of chemical warfare agents including nerve agents GB and GD, hydrogen cyanide, mustard and lewisite. [Deleted.] The Soviets are fully aware of U.S. binary chemical munition efforts, and have [deleted.] They probably [deleted].

A viable protective posture is a prerequisite for both offensive and defensive chemical operations. There has been no reduction of effort to equip and train Warsaw Pact forces to ensure their survivability and effectiveness in toxic environments. A large, well-equipped and well-trained chemical-biological-radiological (CBR) organization is orgainc to the Warsaw Pact Military structure to provide reconnaissance and decontamination support. Personnel are fully equipped with individual protective items, and training in the use of these items continues to be emphasized.

Senator Quayle. General Meyer, how would you compare that with the U.S. current capability? Are they twice, four times (or how much) more capable than us?

General Meyer. Before making any comparison of capabilities, it must be emphasized that the objective of the United States, which is demonstrated historically, has not been to amass a chemical warfare capability [deleted].

The U.S. chemical warfare capability is based upon long standing national policy, its treaty commitments and the principles of international law extending therefrom. Succinctly, the U.S. chemical warfare capability is derived from the objective of deterring the use of chemicals in war. However, the Soviet chemical warfare capability, both offensively and defensively, and the use of both chemical weapons and toxins (biological warfare agents) in Southeast Asia and purported use in Afghanistan, characterize their national objective as other than deterrence. In my opinion, the Soviets consistent, programmatic approach in preparing for chemical warfare and their doctrinal approach on the use of chemical weapons, can only be concluded as an intent to initiate chemical warfare whenever it is to their advantage.

Comparatively, the U.S. objective, i.e., deterrence, seeks only a capability which would deny any initiator of chemical warfare a significant military advantage from his use of chemical weapons. The United States, therefore, must have both a credible capability to conduct sustained operations in a contaminated environment and a retaliatory chemical weapons capability that would impose a like loss of capability which characterizes chemical warfare, i.e., loss of mobility, degradation imposed by individual protection, and the burdening logistical requirement of defense. Therefore, U.S. forces are seeking to obtain a [deleted] capability. Today our capability allows [deleted].

Our retaliatory stockpile, because of the restraint exercised during U.S.-Soviet negotiations, has [deleted]. If all of the usable munitions were in a ready to fire configuration today, [deleted]. This is due in large measure to the qualitative inadequacies of weapons and agent mix.

Based then on this, the Soviets surely enjoy a [deleted] advantage over U.S. forces. We must reduce this [deleted] ratio by modernizing our stockpile with binary munitions.

At the same time, we should also continue the necessary discussion which will lead, hopefully, to negotiating a verifiable treaty.

SOVIET CHEMICAL WARFARE WEAPON USE

Senator Quayle. General Meyer, do you believe that, if there were ever a conflict in the European theater, the Soviets would employ chemical weapons as part of a conventional attack? Would they do so as a matter of course, or would they do so only as a last resort if their forces were being defeated?

General Meyer. The Army view is that the Soviets consider chemical warfare weapons to be tactical area effect weapons and [deleted].

Senator Quayle. General Meyer, if we did nothing to enhance the U.S. defensive and offensive chemical posture, and the Soviets did employ their weapons, what would be the outcome of the battle?

General MEYER. Your questions are very pertinent, in that we now lack an adequate defensive capability and credible retaliatory stockpile. I believe the Soviets, without question or the slightest hesitancy, would employ chemical weapons on a massive scale—given the current asymmetry in chemical warfare capabilites and the overall postures of other components—theater nuclear and conventional. The character of the Soviet's chemical warfare capability is such, that they may now view it as a preferred alternative to their first use of tactical nuclear weapons. [Deleted.]

Clearly if we are to deter hostilities, or should deterrence fail, insure the national security of our Allies and our own, we must make significant advancement in insuring our forces have a capability to conduct sustained operations in a contaminated environment, acquire a modern, credible retaliatory stockpile of chemical weapons, and make needed improvements to our theater nuclear weapons.

Senator QUAYLE. General Meyer, if Soviet ground forces, using CW/BW weapons, were prevailing, and NATO troops were being routed and civilians were being killed, what options would NATO have? Aren't there really only two alternatives: (1) to accept defeat in NATO; or (2) to employ tactical nuclear weapons, with all of the uncertainties that such an action would imply?

General MEYER. The scenario which you described is precisely the situation that causes us grave concern—the lack of a spectrum of capabilities to effectively implement our flexible response strategy and our national chemical warfare policy. As you know, U.S. policy forbids the initiation of chemical warfare. Further, we seek to deter Soviet use of chemicals by possessing an effective in-kind retaliation capability—a capability to provide options short of escalation to the use of nuclear weapons. [Deleted.]

It is for this reason that the Army has and will continue to seek urgent improvements in our retaliatory chemical posture. In our judgment, such programs serve to raise both the chemical and nuclear threshholds.

ENHANCING CHEMICAL WARFIGHTING CAPABILITY

Senator QUAYLE. General Meyer, you urgently recommend that the US enhance its chemical warfighting capability. Would you rank that as a very high priority in the Army's plans?

General MEYER. Indeed, I do rank it as one of the Army's top priority areas. The Army's priority for achieving a credible chemical deterrent/retaliatory capability is driven by the risks posed to our national security by the Soviet threat. There are two essential elements for achieving the required deterrent/retaliatory capability. We must move to improve our protective posture and we must modernize our capability to retaliate with chemical weapons—both must be unequivably credible. The seriousness or importance which the Army has placed on correcting the current deficiencies is reflected in the fiscal year 1983 budget request. It is the largest funding request for the program made, and represents the maximum, realistic executable program. The program seeks to achieve restoring a strong technology base through an aggressive R&D program which is essential to obtaining the needed qualitative improvements in equipment. In addition, it seeks to make the required improvements in the development of doctrine and training of our forces; and, acquire sufficient defensive equipment to allow the conduct of sustained operations. Improvements to our retaliatory capability is, again, the maximum executable. The request for production—ending a twelve year moratorium on modernizing our deterrent capability—places the Army at the threshold of acquiring the required chemical weapon stockpile. The objective of stockpile modernization is to develop and maintain the safest, smallest quantity of munitions which will provide the ability to deny a significant military advantage to any initiation of chemical warfare. We do not, nor do we need to, plan to match the Soviets in agent/munition quantities and types. Our requirement is only for a credible deterrent capability—considering our doctrine and force structure and the Soviets vulnerabilities.

ZERO OPTION

Senator QUAYLE. General Meyer, if the United States were to press for discussions leading to a "zero option" in the CW/BW area, with rigid requirements on treaty verification and compliance, would you support the position? Does that mean that the Army's fiscal year 1983 request for enhancement of our CW capability is done with reluctance and only as a last resort?

General MEYER. The ultimate goal in the area of CW is a complete and verifiable ban on the development, production, and stockpiling of chemical weapons—which you have described as the "zero option." The zero option, assuming that the risks to

national security were made acceptable by explicit provisions for complete, realistic verification and compliance measures, would remove the threat of any significant use of chemical weapons. Such an option, therefore, would be completely acceptable, and has been supported by the United States in arms control for nearly a century. The Army's planned enhancement is the required interim action, consistent with the long standing US policy, to deter chemical warfare. It is an action required at this point by the risks to national security—the Soviet threat. The fiscal year 1983 request, in particular those which pursue the obtainment of a credible chemical weapons stockpile, is totally consistent with current arms control efforts. In actuality, it is an enhancement to achieving the "zero option" by providing an increased incentive for the Soviets to negotiate in good faith. To forego modernization equates to unilateral disarmament—making the "zero option" for the United States a reality, without a treaty and without the first Soviet concession.

Senator QUAYLE. General Meyer, is there a time urgency about our plans to restore a parity in the CW area? What are the consequences of our delaying your plans for 6 months or a year? I mention that in the context that the public views CW/BW a repulsive thing, and is only now waking up to the fact that the Soviets are engaged in wholesale slaughter of civilians. They are reluctant to support a U.S. chemical (offensive) capability, and will do so only if they are assured that we have exhausted every viable alternative.

General MEYER. First, let me say that the public sensitivities to CW/BW are understood, and that it is essential that the nature of the Soviet threat be understood and appreciated by the public—particularly with respect to the use of chemical and biological weapons in Southeast Asia and Afghanistan. It is equally important that the U.S. efforts to obtain an effective, comprehensive and verifiable arms control agreeement be understood and appreciated as having explored the extent of viable alternatives. And that this process has been pursued with ever increasing risk to national security and now jeopardizes securing the required prohibition of chemical weapons. Negotiations must be from a position of strength and in my view, that has been one of the [deleted.] The munitions requested are essential and should be available at the earliest point possible. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

ARMY PROCUREMENT

Senator NUNN. Mr. Secretary, I want to compliment you for your leadership and initiative in establishing the "Cost Discipline Advisory Committee" and for the excellent and candid report it submitted to you which you forwarded to Congress on ways to improve Army procurement programs.

I noted with interest the observations that certain areas needing improvement are: (a) earlier identification of problems as current reporting systems are fragmented and do not permit early identification of program decision alternatives and trends; (b) better methodology to evaluate the program manager's performance; (c) the need for an internal report prepared by the program manager that describes the status of the program, his problems and his proposed solutions. This report would be the basis for the SAR; and (d) the Senior Army leadership does not receive a periodic report of the status of programs and contracts and recommended the internal report described above.

What do you view as the needed changes and would you agree or disagree that the Nunn Unit Cost Amendment meets many of the recommendations your Advisory Committee recommended?

Secretary MARSH. It is my belief that nearly all of the initiatives from the Cost Discipline Advisory Committee are needed if we are to solve our cost growth problems. In fact, we are now in the process of implementing those recommendations with a target date of June 1982. The one exception to the list you enumerate above is the need for a better methodology to evaluate the program manager's performance. It is our belief that the current Officers Evaluation Report is adequate to do that job. I would basically agree that the Nunn Unit Cost Amendment could be useful in implementing many of the Committee's recommendations, specifically in streamlining the Selected Acquisition Reports.

UNIT COST REPORTS

Senator NUNN. Mr. Secretary, in your letter of February 8, 1982, as required by the Nunn Amendment, you list five Army programs that exceeded the baseline by

over 25 percent on which reports will be due within 30 days. Did you have any programs that exceeded the 15 percent baseline but not 25 percent.

Secretary MARSH. No, sir.

Senator NUNN. How many systems does the Army have in the SAR?

Secretary MARSH. As of 31 December 1981, the Army prepares Selected Acquisition Reports or SARs for 16 systems. Of this number 13 designated DoD major system SARs are provided to Congress. The other 3 SARs are not so designated by OSD; however, all 16 SARs are provided to the General Accounting Office.

COST GROWTH

Senator NUNN. Mr. Secretary, the point here is not to point the finger of blame because I agree with the Cost Committee that the Army has done a comprehensive job in identifying the problem areas. What do you view as the major changes needed to solve these problems?

Secretary MARSH. We have made a decision to implement nearly all of the initiatives recommended by the Cost Discipline Advisory Committee. Some of the major actions coming out of this effort are an upgrading of our cost estimating methodology, a monthly report to senior managers of the program manager's personal assessment of his program, and an attempt to improve our Selected Acquisition Report system. We also need to increase the frequency of cost estimates reviewed by senior managers. To this end, we will now require annual updates of the baseline cost estimate on all major systems. We are creating a list of stable programs working toward multiyear procurement and are investigating the risks and causes of the cost growth we traditionally experience as we transition from development to production. All of these changes are needed to give the Army better tools to solve the cost growth problems.

PROCUREMENT LEVELS

Senator NUNN. General Meyer, in his posture statement Secretary Weinberger states that: "Under this 5-year plan, our ground forces will be receiving additional quantities of both weapon systems and support equipment. Compared to the final Carter plan, our ground forces will get 29 percent more M1 tanks, 34 percent more fighting vehicles, 25 percent more attack helicopters, and 11 percent more utility helicopters."

Do you agree with this analysis? What is the basis for this estimate and your opinion of its likely achievability? Will you compare the Carter plan to the Reagan plan for the systems listed above both in terms of quantities, timeframes, and costs in constant and current dollars?

General MEYER. Yes, our analysis does conclude that our ground forces will be receiving additional quantities of weapons systems under the 5-year Reagan plan. The basis of this estimate is a comparison of the 5-year plan at the time the Carter fiscal year 1982 budget was submitted (January 1981) versus the five-year plan as of the fiscal year 1983 Budget Submission (February 1982). The Army's 5-year plan associated with the fiscal year 1983 budget submission is achievable. A comparison of the Carter 5-year plan and the Reagan 5-year plan follows:

Fiscal year	Quantities	Current year	1982 constant
CARTER PLAN			
M1 tanks:			
1982	569	$1,043.8	$1,043.8
1983	627	1,029.7	959.4
1984	847	1,384.9	1,206.6
1985	834	1,437.1	1,174.9
1986	822	1,505.1	1,155.4
Fighting vehicles:			
1982	464	693.1	693.1
1983	427	652.0	607.5
1984	469	666.0	580.3
1985	651	916.6	749.4
1986	637	954.8	732.9
Attack helicopters:			
1982	8	293.1	293.1

Fiscal year	Quantities	Current year	1982 constant
1983	44	464.7	432.8
1984	51	439.2	382.4
1985	78	612.7	500.5
1986	80	595.4	456.7
Utility helicopters:			
1982	78	372.6	372.6
1983	90	418.1	389.4
1984	70	314.2	273.6
1985	67	310.7	253.8
1986	49	249.2	191.1
REAGAN PLAN			
M1 tanks:			
1982	665	1,361.8	1,361.8
1983	776	1,457.0	1,357.6
1984	1,080	1,950.4	1,699.4
1985	1,080	2,066.9	1,689.8
1986	1,080	2,358.5	1,810.4
Fighting vehicles:			
1982	600	808.2	808.2
1983	600	793.3	739.2
1984	555	739.8	644.6
1985	775	1,073.9	878.0
1986	1,009	1,513.0	1,161.4
Attack helicopters:			
1982	11	444.4	444.4
1983	48	760.3	708.1
1984	96	1,187.3	1,034.1
1985	125	1,226.9	1,002.2
1986	140	1,132.3	868.5
Utility helicopters:			
1982	96	491.3	491.3
1983	96	508.6	473.7
1984	84	402.9	350.8
1985	78	370.5	302.6
1986	78	537.4	412.2

QUALITY

Senator NUNN. General Meyer, we have had any number of discussions over the years on the quality vs quantity issue, and I want to congratulate you personally on the improved quality in new army recruits. In my view, this is largely attributable to your personal commitment and leadership.

What are the prospects for continuing this trend and do you think the current quality standards should be maintained?

General MEYER. The Army believes it can meet its strength requirement in fiscal year 1982 and beyond and satisfy the congressional constraints. In making this assessment, the Army is assuming continued support of Congress to provide requested recruiting resources, adequate adjustment of military pay, and an education incentive program with an Army "equalizer". The Army remains totally committed to enlisting high school graduates and higher scoring personnel and fully supports the intent of Congress to ensure that we have the necessary quality of military manpower. I remain committed to the pledge I gave last year that I will recommend cutting end-strength and structure if we can't get the quality needed.

BUDGET SHORTFALLS

Senator NUNN. General Meyer, in your posture statement on page 41, you included an unusual chart of what the fiscal year 1983 Army budget request does not do. What do you consider the major deficiencies of the 1983 program and how is there any hope of addressing these shortfalls if these budget levels are inadequate?

General MEYER. The fiscal year 1983 budget represents a balanced program designed to maximize the resources available to meet the Army's missions. As an inevitable byproduct of that process certain high priority items are not funded at as high a level as I would desire. Throughout my statement I have highlighted critical areas which require additional funding. Within the context of a balanced program it is difficult to single out one or two aspects of the budget as the most significant deficiencies. Measures to alleviate these deficiencies, of necessity, must be integrated in a coordinated manner to insure a balanced program. As to rectifying the deficiencies, in the weeks to come members of my staff will be addressing the details of their programs and from that process will come a better understanding of the legacy of the past and the implications upon this and future budgets.

FORSCOM HEADQUARTERS

Senator NUNN. Mr. Secretary, what is your view on the need for a permanent headquarters for the Army Forces Command and do you support the current location at Fort McPherson for that permanent headquarters?

Secretary MARSH. Over the past few years the Army conducted a series of analyses addressing the relocation of Headquarters, U.S. Army Forces Command (FORSCOM) and the closure of Fort McPherson. Specifically, the Army made an operational impact analysis which addressed the effects of such a move on FORSCOM missions. It was determined that the operational impacts of such a move preclude moving out of Fort McPherson and the HQ FORSCOM should remain permanently at Fort McPherson.

Senator NUNN. Do you support the requirement for construction of a new headquarters building at Fort McPherson? What is the justification for this command and the headquarters facility?

Secretary MARSH. Yes, the Army supports the requirement for a new headquarters building at Fort McPherson. The missions of the FORSCOM Commander, who is a major Army commander of the Department of the Army, clearly explain the need for the command. The CG FORSCOM commands the numbered CONUS armies, the major Army combat and combat support troop units in CONUS, Alaska, Hawaii, Puerto Rico, and the Canal Zone. He has command responsibility for the units, installations, and activities that are principally related to his readiness responsibility for the bulk of the deployable Army troop units in the power base of the Army. CG FORSCOM is responsible for organizing, training, equipping, and insuring the combat readiness of assigned troop units. He commands the United States Army Reserve (USAR) and provides direction for and supervises training of the Army National Guard (ARNG). At present, HQ FORSCOM is spread through a number of World War II temporary structures and these buildings should be replaced as a matter of priority by a modern headquarters building. The Army is developing the scope of the project and expects to award an Architect-Engineer contract in the late spring.

Senator NUNN. Mr. Secretary, what is the past history in the Army Secretariat in terms of support for this permanent headquarters? In other words, has this been supported by previous Secretaries of the Army?

Secretary MARSH. The Army has consistently supported retention of HQ FORSCOM at Fort McPherson.

Senator NUNN. General Meyer, what is your view on the need for a permanent headquarters for the Army Force Command and do you support the current location at Fort McPherson for that permanent headquarters?

General MEYER. Over the past few years the Army conducted a series of analyses addressing the relocation of Headquarters, US Army Forces Command (FORSCOM) and the closure of Fort McPherson. Specifically, the Army made an operational impact analysis which addressed the effects of such a move on FORSCOM missions. It was determined that the operational impacts of such a move preclude moving out of Fort McPherson and the HQ FORSCOM should remain permanently at Fort McPherson.

Senator NUNN. Do you support the requirement for construction of a new headquarters building at Fort McPherson? What is the justification for this command and the headquarters facility?

General MEYER. Yes, the Army supports the requirement for a new headquarters building at Fort McPherson. The missions of the FORSCOM Commander, who is a major Army commander of the Department of the Army, clearly explain the need for the command. The CG FORSCOM commands the numbered CONUS armies, the major Army combat and combat support troop units in CONUS, Alaska, Hawaii, Puerto Rico, and the Canal Zone. He has command responsibility for the units, in-

stallations, and activities that are principally related to his readiness and defense missions. In this concept, he has command readiness responsibility for the bulk of the deployable Army troop units in the power base of the Army. CG FORSCOM is responsible for organizing, training, equipping, and insuring the combat readiness of assigned troop units. He commands the United States Army Reserve (USAR) and provides direction for and supervises training of the Army National Guard (ARNG). At present, HQ FORSCOM is spread through a number of World War II temporary structures and these buildings should be replaced as a matter of priority by a modern headquarters building. The Army is developing the scope of the project and expects to award an Architect-Engineer contract in the late spring.

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General MEYER. The Army has consistently supported retention of HQ FORSCOM at Fort McPherson.

ARMY FORCE STRUCTURE AND STRATEGY

Senator NUNN. General Meyer, what is your view on the needed Army force structure in terms of Active and Reserve divisions and Active end strength as required by the policy guidance and strategy as delineated by Secretary Weinberger and OSD?

General MEYER. The Army, in conjunction with the other Services and the Joint Staff, recently conducted a capability assessment of the programed force against the Defense guidance global scenario. Even with projected force improvements as reflected in the fiscal year 1982–87 Army POM submission, wargaming suggests that U.S. forces programed for NATO will provide a [deleted] of executing the National military strategy in NATO. Wargaming also suggests that the forces deployed to Southwest Asia [deleted.]

The Joint Strategic Planning Document (JSPD) published on 1 September 1981, established worldwide Army force requirements of fully structured and supported divisions to provide a reasonable assurance of successfully executing the national military strategy. This, in my view, is the needed Army force structure. It consists of fully structured and supported divisions and requires approximately million Active military end strength. However, [deleted]. The currently programed 26 division force (16 Active and 10 Reserve) reflects the most cost effective application of projected resources for deterrence and readiness and provides the minimum essential level of Army forces. In my view, the policy guidance and strategy as delineated by Secretary Weinberger and OSD provides a sound framework for an improved and balanced defense posture for this Nation.

Senator NUNN. General Meyer, is the five-year plan sufficient to meet these requirements? What is the Army strategy-force mismatch, if any, and can you quantify this in terms of budget resources in current dollars and program?

General MEYER. The 5-year program (FYDP) is not sufficient to meet our global strategy requirements. The Army strategy-force mismatch in terms of divisions is this: The planning force, as stated earlier, is [deleted] divisions. The Army has 24 divisions. We are [deleted] active divisions short. Additionally, four of our current 16 active divisions are rounded out with a Reserve Component brigade.

If we build toward the planning force, in terms of manpower, the active Army is at about [deleted] of the strength that will be needed (730,000 now on active duty vice [deleted]. In fiscal terms, the planning force would cost approximately [deleted] billion more than the FYDP force over the fiscal year 1983 to 1987 period. By fiscal year 1987, only [deleted] of the [deleted] active division would be manned and equipped. Even with virtually unlimited resources, it would take at least until [deleted] to increase the Army to the full planning force of [deleted] divisions.

LIGHT ARMOR VEHICLE PROGRAM

Senator NUNN. What is the current Army program in the light armor vehicle area and how does this relate to new Army doctrine?

General MEYER. The Army and Marine Corps both acknowledged that their light forces have a deficiency in that they lack a lightweight, antiarmor, assault capable weapons system that can be deployed strategically and tactically by existing aircraft. To correct this deficiency in part, a two-phased, joint program is planned. The first phase or near term effort is the competitive selection and procurement of an essentially off-the-shelf armored vehicle with (for the Army) the 25MM Bushmaster Chain Gun as the main armament. The second phase or far term program is a joint developmental effort for a new armored vehicle using technology from the Armored

Combat Vehicle Technology Program, the M1 Abrams tank, M2/3 Bradley Fighting Vehicles and other programs. The Army calls these vehicles Mobile Protected Guns (MPG's).

These light armored vehicles will be used to equip units of the developing High Technology Light Division (HTLD) and elements of the Airborne Division. Our purpose is to produce a strategically deployable, lean, hard-hitting, technologically enhanced and sustainable light division. The Army's objective is to field the first prototype HTLD in fiscal year 1985.

Senator NUNN. How will these units be integrated into the Army force structure?

General MEYER. We currently have and will have into the 1986 timeframe a 24 Division Force. Because of the great diversity of worldwide contingencies to which we must be prepared to respond, the Army requires a mix of heavy and light forces. The mainstay of our future light forces will be the HTLD. Current plans call for the eventual transition of the 9th, 25th and 7th Infantry Divisions to HTLD's. In addition, elements of the 82nd Airborne Division and the 2nd Infantry Division will also be converted.

The Mobile Protected Gun vehicles will equip battalion-size units which will be transitioned into the units that I have described. In the near term these battalions will be composed of a mix of MPT's with 25MM Bushmaster Chain Guns and High Mobility Multipurpose Wheeled Vehicles (HMMWV) mounting TOW Antitank Guided Missiles (ATGM). In the far term both the MPG (25MM) and the HMMWV will be replaced by a single vehicle MPG (Far Term) described in the answer to your previous question.

ARMY DOCTRINE

Senator NUNN. I recently received an impressive briefing from Brigadier General Morelli from TRADOC on the Army's new FM 100-5—the basic tactics and doctrine—and the conceptual framework for the Air Land Battle 2000.

What do you consider the major shifts from current practice in the way our Army will fight under these precepts, especially as it relates to the Central Europe Theater?

General MEYER. The Army's emerging doctrine is evolutionary, but it reorients our thinking from linear, shallow, firepower oriented techniques to non-linear, dynamic, airland operations over the depth of the battlefield.

The doctrine stresses initiative, agility and speed of operations through mission type orders; depth in time, distance and resources; and synchronization of all elements of our force. It also emphasizes the spirit of the offensive as a means to take the initiative from the enemy.

The Air Land Battle 2000 concept, as an extension forward in time of this same doctrine, provides a consistent framework for our doctrine, materiel, and organizations of the future.

HELLFIRE MISSILE

Senator NUNN. General Meyer, what is the status of the Hellfire missile program and how well is the missile performing in its tests?

General MEYER. The Hellfire Modular Missile System has completed a very successful engineering development phase and is currently transitioning into production. The quality of the system is evidenced by the firing box score. Out of 184 scored launches, 161 have been successful hits. Those 23 that were unsuccessful have had the deficiencies corrected and modifications incorporated into prototype hardware. The December 1981 SAR shows that demonstrated performance has met or exceeded all required operational characteristics. In addition the project manager's baseline cost estimate and the Army's independent cost estimate have predicted procurement costs will be below currently programed funds. The Army has assessed the transition into production for Hellfire as low risk. In summary, Hellfire has proven to be one of the Army's brightest developmental successes.

Senator NUNN. General meyer, what plans or options does the Army have for deploying Hellfire on platforms other than the Advanced Attack Helicopter—AH-64?

General MEYER. The Army is [deleted].

Senator NUNN. General Meyer, what does the Hellfire mean to the Army in terms of anti-tank and anti-armor capability and are its capabilities essential to Army tactics and fighting doctrine?

General MEYER. The Hellfire missile is a significant improvement over the Army's current helicopter anti-armor missile (TOW) in that it has (1) greater standoff/range, (2) less time of flight, (3) increased warhead lethality, (4) increased growth potential, (5) multiple employment options, and (6) increased probability of

system single shot kill. No near term alternative system exists that can perform as effectively as the Hellfire missile. The Hellfire with the AH-64 attack helicopter provides a total system capability not attainable with any alternative system, and is, in addition, clearly cost-effective and combat effective. Its capabilities are essential if the Army is to be effective on the modern battlefield against the projected massive, tank heavy threat.

STRATEGIC AIRLIFT MOBILITY

Senator NUNN. General Meyer, in your statement, you stressed strategic deployability as an essential characteristic of the Army force. What are your views of how the airlift program recommended in the 5 year plan meets this requirement? How do you rate the C-5 in terms of providing strategic airlift mobility for Army forces?

General MEYER. The Air Force is planning to procure 50 C-5N and 40 KC-10 aircraft over the next 5 years, as well as resuming a moderate CRAF enhancement program in fiscal year 1984. The addition of C-5N cargo aircraft does provide a substantial near-term increase in inter-theater outsize cargo airlift capability to deploy Army forces. However, it does not provide any additional intra-theater airlift capability, which we consider a critical requirement. Even though the C-5N does enhance our deployment capability at the end of the 5 year program, it fails to satisfy many of our wartime airlift requirements such as intra-theater lift of outsize cargo, rapid combat on/off load, low altitude parachute extraction system (LAPES) and airdrop of outsize equipment.

In sum, the C-5N-KC-10 decision will partially reduce the near-term airlift shortfall. However, actions are required to develop an airlift acquisition program beyond the FYDP period which address the Army's current and future wartime airlift requirements described above.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

DEFENSE STRATEGY ISSUES

Senator LEVIN. General Meyer, a number of observers of defense matters are beginning to question whether the present Administration's defense strategy—to build a military establishment to fight the Soviets anywhere, everywhere, anytime, and all at once—makes sense militarily and economically.

The latest issue of Air Force Magazine, February 1982, the voice of the Air Force Association and certainly no pacifist group, recently carried the following "Washington Observation:" "The Reagan Administration's recent decision to promulgate without fanfare and global strategy of meeting adversaries head-on and simultaneously—as opposed to the two-and-half and one-and-a-half war postures of previous administrations—may lead to geostrategic over-extension on the part of the United States."

Do you think this "all everything" military strategy makes sense, or would it be preferable for this country to establish priorities as to which regions of the world are most important to it and its allies and then procure the defense capabilities to defend just those regions?

General MEYER. I do not agree that our strategy is to meet every threat simultaneously as suggested by the characterizations you mention. A global strategy—or a policy of global response—seeks acknowledgement that direct U.S.-Soviet confrontation in any region carries significant risks and in some instances good reasons for escalation to other areas vital to our national interests. Our planning must accord with this reality.

We recognize that not all our objectives can be achieved simultaneously. We set priorities for the allocation of limited forces among competing operational needs. In doing so, however, we seek to maintain strategic flexibility, recognizing that the actual rather than planned employment of force may vary significantly according to the particular circumstances of an actual threat to our interests, as opposed to threats postulated in our plans.

SOVIET MODERNIZATION AND FORCE EXPANSION EFFORTS

Senator LEVIN. General Meyer, do you think it is necessary that the United States be capable of engaging the Soviets in major wars throughout the world simultaneously? Do you think the Soviets even can simultaneously mount and substain such a threat?

General MEYER. The answer to your first question depends on the answer to the second.

Aside from their modernization and force expansion efforts—efforts which have given them an unprecedented peacetime level of 180 divisions, the Soviets enjoy a number of advantages which contribute to their ability to wage a global war. First, they are a continental power dominating the Eurasian landmass in such a posture as to place them within striking distance of many of our vital interests. Secondly, through the development of a network of surrogate states, the Soviets have developed a truly worldwide threat to our interests in the Third World. Finally, as a self-contained autarkic power, exercising strict control over their society and over the Warsaw Pact, the USSR could launch and sustain a war on a global scale without the ethical, economic, and political considerations which govern our free societies.

I do not mean to portray an overly pessimistic view. You know that the Soviets have a number of important disadvantages—uncertain allies; a ring of powerful enemies; a depressed economy; a stagnant and disproved ideology; and many others. Further, their record over the last decade had been one of tenuous successes—and numerous losses—achieved primarily through their only real strength, that of military land power. But the fact remains, the Soviet Union is capable of threatening simultaneously our vital interests in many theaters.

From this perspective, any direct U.S.-Soviet conflict could entail operations by our forces in several theaters simultaneously both by choice and by necessity. Our planning to meet such circumstances must accord with both the reality of Soviet global reach and our own resource constraints. We do so by stressing the need for a coalition approach; by seeking improvements in our defense capabilities; by building towards more strategically flexible forces; and by setting realistic priorities.

AREAS IN THE WORLD IMPORTANT TO UNITED STATES AND ALLIES

Senator LEVIN. General Meyer, which regions of the world do you regard as the most important to the security of the United States and its allies, and in which order?

General MEYER. With the erosion of equivalance and the demonstrated increase in Soviet reach and ambitions, all regions of the world take on increased importance to the United States. Our basic vital interest is to preserve the United States as a free nation with its fundamental institutions and values intact, and thus the physical security of the United States is our overriding priority.

[Deleted.]

A western hemisphere free from internal or external threats in which the U.S. retains access to hemispheric strategic resources is also a vital interest to the nation. [Deleted.]

Senator LEVIN. In which is the U.S. Army most capable of fulfilling the defense missions assigned to it for that region? The least capable? How do its capabilities to fulfill its assigned missions in the other regions you think most important compare to those in these two regions? What are its major strengths and most serious weaknesses in each of the regions of the world which you think are most important to U.S./allied security?

General MEYER. That is a very difficult question because there are many ways of looking at capability and missions. The Army has defense missions throughout the world, in all theaters I have mentioned. Our capability of executing these missions is dependent upon how many of these missions we are told to do at the same time. Given each mission in isolation, we can probably fulfill each of them. If you rank our three largest missions (NATO, Southwest Asia, Northeast Asia), we are probably [deleted].

We have strengths and weaknesses which vary in all theaters. Our strengths, in NATO and Northeast Asia, are reliable allies and forward deployed forces which provide an infrastructure base for reinforcement as well as acting as a deterrent. Our most serious weaknesses include [deleted]. In Southwest Asia, our weaknesses also include [deleted]. If we assume that we would have to execute more than one of these missions at the same time, then these weaknesses are magnified.

Senator LEVIN. General Meyer, under the 5-year defense program submitted by the Administration, will the Army be able to carry out successfully its assigned responsibilities in defending the Persian Gulf and NATO Europe? If not, in which region and in which mission responsibilities will it fail?

General MEYER. The Joint Chiefs of Staff, in their Joint Strategic Planning Document have established a requirement for [deleted] Army divisions to achieve this reasonable assurance of successfully executing the national military strategy. We

recognize that [deleted]. Our current program, however, provides the Army with balanced improvements in each region of concern.

The Program submitted by the Administration will greatly improve our capability in both theaters. Regarding our Persian Gulf capability, the Army can [deleted]. If the fiscal year 1983–87 program is funded, we will have substantially greater capabilities and I believe, [deleted].

The Army's capability in NATO will also greatly increase during the Program, and our studies indicate a much greater chance of successful mission execution. [Deleted.]

ARMY CAPABILITY INCREASES

Senator LEVIN. General Meyer, what additional spending for what specific programs in each of these five fiscal years, especially fiscal year 1983, would be needed to enable the Army to carry out its assigned missions in the Persian Gulf and NATO Europe?

General MEYER. The JCS, in the Joint Strategic Planning Document (JSPD) established worldwide army force requirements for [deleted] fully structured and supported divisions to provide reasonable assurance of successfully executing the national military strategy. While we do not do a detailed cost analysis of the JSPD force, we recognize from our macro analysis that [deleted]. To achieve this force, we must first procure additional structure to support the current 24 divisions and then add structure to reach our [deleted] division objective. This would require an active manning end strength of approximately [deleted] million by fiscal year 1991 and an additional [deleted] thousand end strength for the Reserves. Total obligation authority additions necessary within the FYDP alone, to add the new divisions, support forces and procure modernized equipment would exceed [deleted] billion dollars.

Our current program provides the Army with balanced improvements in overall force capability for each region of concern within currently projected fiscal and manpower constraints. The current direction and associated resources envisioned in our five year program, if realized, provide the Army with steady readiness increases during the period fiscal year 1983 to fiscal year 1987. The Army, in conjunction with the other Services and the Joint Staff, recently conducted a capability assessment of both the current and the programed forces. What we looked at was a conflict beginning in [deleted]. This assessment leads us to believe that in fiscal year 1982, there is a [deleted]. Similarly, wargaming suggests that in fiscal year 1982 U.S. forces in [deleted] following the initiation of hostilities. In fiscal year 1987, U.S. forces in NATO will [deleted]. In that same year in Southwest Asia, our analysis suggests that the U.S. [deleted].

ARMY DECREMENTS

Senator LEVIN. Did the Army seek any of this additional spending it its budget request to the Office of the Secretary of Defense? What reasons were given as to why any of this funding was denied? Do you know whether it was to fund "maritime supremacy" programs in the Navy?

General MEYER. The Army did request additional fiscal resources in the Program Objective Memorandum fiscal year 1983–87 which was submitted in June 1981. Those resources began formation of [deleted] new active divisions which would have been substantially organized by fiscal year 1987. In addition, war reserve stock munitions were to have been procured for the Rapid Deployment Force to provide [deleted] days of sustainability. [Deleted.] As the magnitude of the projected Budget deficit was identified, it became clear that some scaling back in all Service programs, and the fiscal year 1983 Budget level, would be necessary. We do not believe, however, that any one Service was funded at the expense of another.

DEFENSE STRATEGY ISSUES

Senator LEVIN. General Meyer, last week, the Chairman of the Joint Chiefs, General David Jones, told this committee that the 5-year plan in the defense budget to improve the sustainability of our force the number of days they have sufficient ammunition, fuel, spare parts and other supplies to be able to continue to fight—does not accomplish this objective as quickly as desirable. Do you agree?

General MEYER. Yes, I agree. The 5-year plan, which is based on the Army's fiscal years' 1983–87 Program Objective Memorandum (POM), does not fully meet the minimum risk levels established by the Army's prepositioning objectives. At the end of the [deleted], the Army will be short the following number of days:

	Europe			RDF–A			Korea (U.S.)		
	Prepo.	Prog.	Short	Prepo.	Prog.	Short	Prepo.	Prog.	Short
Ammo									
Major items				[Deleted.]					
Secondary items									

Senator LEVIN. What are the Army's sustainability needs which are not adequately and rapidly enough addressed in this 5-year defense program, especially in the fiscal year 1983 budget?

General MEYER. We are short in all areas of war reserve materiel worldwide. This includes ammunition, major items and secondary items. The [deleted] budget is projected to raise our war reserve levels, in days of supply as follows:

	Europe gain 1983	RDF–A gain 1983	Korea (U.S.) gain 1983
Ammo			
Major items		[Deleted.]	
Secondary items			

WEAPON SYSTEMS AND THE FISCAL YEAR 1983 BUDGET

Senator LEVIN. Mr. Secretary, according to the General Accounting Office, the Army is going to find it difficult to fund all of its planned weapon system procurements. The GAO believes that as these systems enter production the costs will escalate beyond current estimates.

Is the recommended fiscal year 1983 budget sufficient to fund all the planned major Army procurement programs? Will it allow for unexpected but reasonable production problems? Are most programs funded at efficient production rates? Which are not?

Secretary MARSH. Based upon our current estimates, the fiscal year 1983 budget request is considered sufficient to fund Army's planned major procurement programs. The funds requested in this budget will improve both the quantity and quality of our forces while providing for the acquisition of equipment in a more economical manner.

Historically, some problems can be expected in any major production endeavor scheduled for completion over a long period of time. The acquisition process for Army weapon systems is a lengthy procedure and, therefore, is not immune to such production problems. In determining the production scheduling for our weapon systems, we take such considerations into account and, therefore, minor "normal" production problems are reflected in the quantities contained in the budget request.

Most of the Army's major weapons systems programs are funded in the fiscal year 1983 Budget request at efficient production rates. The following systems are not: Patriot, Stinger, and TOW.

ARMY TOP PRIORITY PROCUREMENTS

Senator LEVIN. Mr. Secretary, what are the top priority procurements for the Army? Will the Army cancel other procurements to acquire such top priority systems if the fiscal year 1983 budget proves insufficient?

Secretary MARSH. Army procurement includes modernization as well as readiness systems. Major systems in the top of the procurement priority list include:

Abrams tank (M1)
Bradley Fighting Vehicle (M2/M3)
AH–64 Apache
HMMWV
TOW
Pershing II
MLRS
Patriot
Tactical Communications
Tactical Cargo Trucks
UH–60 Blackhawk
CH–47 MODS

The Army reviews the entire procurement program when budget cuts are required. Cancellation of programs may, of course, be necessary due to budget insufficiency.

READINESS AND SUSTAINABILITY

Senator LEVIN. Secretary Marsh, although the Army's overall budget grows from fiscal year 1982 to fiscal year 1983 by 17 percent (approximately 9 percent when adjusted for inflation), there are striking differences of emphasis within the budget.

Of the four major accounts, from fiscal year 1982 to fiscal year 1983 procurement increases by 26 percent (18 percent in real terms), research and development of 24 percent (also 18 percent in real terms), military personnel by 15 percent (2 percent in real terms), and operation and maintenance by 10 percent (3 percent in real terms).

These disproportionate increases in the investment accounts raise the question of whether the Army is adequately budgeting for the necessary support costs that insure that the new equipment will be delivered to the field and that the units will be ready to receive it.

Don't these relative increases, especially in real terms, suggest that the Army is overemphasizing investment to the detriment of weapons support costs, training, real property maintenance and other areas within the operation and maintenance accounts?

Secretary MARSH. The Army has implemented special programing procedures to insure that the required operation and maintenance (O&M) resources to support procurement are identified. Generally speaking, there is a 2-year lag after the procurement budget is approved by Congress before the equipment comes out the factory door and O&M resources are needed. There are minor exceptions such as the O&M resources which fund the salaries of procurement personnel and advance training development.

The special procedures are embodied in the Army Modernization Information Memorandum (AMIM) and Modernization Resource Information Submission (MRIS) process. These procedures were implemented beginning with the fiscal year 1982 programing year.

The AMIM is the key to Force Modernization Cost Estimating. This is a highly formalized and disciplined reference publication which captures all pertinent information needed to successfully field and operate the new or modernized systems. It provides information regarding equipment description; impact on organization and personnel; training and doctrine; supply; maintenance; facilities; and fielding support costs. The combat developer (Training and Doctrine Command) and materiel developer (U.S. Army Materiel Development and Readiness Command) are the principal sources for AMIM data.

The AMIM also provides fielding distribution plans for the new or modernized equipment. This plan is based on the procurement distribution plan which identifies the quantity of items being produced each month. The fielding distribution plan identifies the gaining command, War Reserve or POMCUS to which the equipment will be distributed, the quantity to be received, and the appropriate fiscal year. Unforeseen production changes do occur which result in changes to the fielding distribution plan and necessitate adjustments to organizational cost estimates during the program, budget, execution processes.

Using the AMIM and unique local factors, the Army commands estimate their total O&M requirement for the new system plus costs associated with the displacement of any systems being replaced. From this they subtract the O&M funding already in their program associated with the support of the system being replaced to derive the net increased or decreased cost estimate.

Net Cost Estimates are reported to Department of the Army on the Modernization Resource Information Submission (MRIS) as part of the Program Analysis Resource Review (PARR). Estimates include detailed justification and are initially reviewed by the Army staff. Subsequently, a review board attended by DA and MACOM representatives is convened to adjudicate differences and finalize the total Army estimate. This 5-year estimate totally replaces FYDP estimates calculated the previous year and constitutes the Program Objective Memorandum (POM) which later serves as the basis for the Army Budget.

In summary, we have provided for the necessary support associated with the delivery and operation of the new equipment.

With respect to any overemphasis of the investment account, the Army's fiscal year 1983 O&M budget is structured so that the highest claimants for readiness related activities, i.e., unit and individual training, training exercises, supplies, equip-

ment and services for combat, combat support and combat service support units, and the hardware producing functions of depot maintenance are fully funded within the non-monetary constraints of training time and training area, supply and equipment availability.

ARMY WAR RESERVE STOCKS

Senator LEVIN. General Meyer, you pointed out in your posture statement that Army war reserve stocks are currently inadequate for a prolonged conflict. What are the principal inadequacies in our war reserve stock, both in terms of specific items and in terms of dollars.

General MEYER. Examples of specific distribution shortages for war reserves are [deleted].

In terms of procurement dollars, the war reserve shortages at the end of the [deleted] period are as follows:

[Billions of dollars]

	Requirement	Assets	Shortages
Major items			
Ammunition		[Deleted.]	
Secondary items			

The above figures show that by the end of the [deleted] period, we will be short of meeting even the Defense Guidance and [deleted] short of assets to support a "prolonged conflict".

Senator LEVIN. Mr. Secretary, under the current 5-Year Defense Program, at what point, if ever, will our war reserve stocks reach an acceptable level?

Secretary MARSH. If the Defense Guidance programing objective is considered to be an acceptable level, the Army will be able to achieve that objective by the end of the [deleted]. However, constrained resources make it impossible to achieve the objective of the "Most Demanding Scenario" as described in the Defense Guidance.

Senator LEVIN. General Meyer, your statement says that in the area of training the fiscal year 1983 budget fails to increase training above last year's levels and does not meet training base operations support needs. Can you tell us how many days during the year a typical infantry brigade has the opportunity to train together as a unit in this field? Is this an acceptable level? What would be the optimum level, in your opinion?

General MEYER. A typical infantry brigade with appropriate supporting artillery and service support units spends about 10 days each year in the field—usually a 5-day field training period every six months that is exclusive of requirements to participate in joint exercises or conduct brigade rotations away from home station to the National Training Center, or to Fort Drum for cold weather training. This average period is barely an acceptable level and requires that brigades conduct Command Post Exercises without benefit of maneuver and full complement of combat support and service support units to maintain command and staff proficiency. An optimum level would be 20 days which would mean 5 field training days each quarter.

TRAINING BASE OPERATIONS

Senator LEVIN. General Meyer, what specific types of training base operations support requirements are not met by the fiscal year 1983 budget request?

General MEYER. The fiscal year 1983 budget request does not include sufficient base operations support to accomplish the total training mission. Specific types of support requirements not fully met are supply operations, maintenance, transportation activities, food service, and quality of life programs.

The inability to accomplish all of the missions/training base operations support requirements is the result of the shortage of civilians and associated pay dollars in the base operations areas cited above. Since 1979 TRADOC, similar to other MACOMS, has been required to absorb a number on non-workload related reductions in the civilian personnel arena resulting in a reduction in the training base operations support capability. The Army, through internal realignments, has been able to alleviate the most serious of these problems, however, shortages still exist and must be eliminated to ensure that the training base mission is fully met.

SIZE OF THE ARMY

Senator LEVIN. General Meyer, you were quoted in the press last fall as saying that the Army expected to add two divisions to the Active force and two divisions to the National Guard by the end of the current 5 year plan. At what point, either during fiscal year 1983 or in the remaining years of the current 5 Year Defense program, will the Army begin filling out these four new divisions?

General MEYER. As I stated last August, the Army's intention was to add two Active and two Reserve component divisions, late in the period fiscal year 1983–87, subject to first having the resources to fill the hollow Army, and ". . . fix the things that are broken." While unquestionably the size Army needed to support the national military strategy is far greater than 24 divisions resource limitations which came more clearly into focus subsequent to August, have necessitated delaying our plans to form the two Active divisions. However, the two National Guard divisions remain in our plans, one each for fiscal year 1986 and fiscal year 1987; the affordability—and most importantly, our ability to recruit and man these units—will be reviewed and analyzed during development of our program for fiscal year 1984–88.

Senator LEVIN. General Meyer, what other force structure increases are planned for the Army during the current 5-Year Defense program?

General MEYER. In addition to the two new National Guard divisions, our program includes force structure increases to support new or modernized systems, the transition of heavy divisions to Division 86 designs, sufficient manpower spaces to raise the authorized level of organization of Army Rapid Deployment Force combat units to Level 1 or their wartime levels of organization. The program also includes activation of additional active combat service support units, such as ammunition, water, medical, transportation, maintenance, and engineers, to deploy with the Rapid Deployment Joint Task Force. These additional units will increase the Active Army combat service support needed for the Rapid Deployment Force to about 65 percent by fiscal year 1987. The remaining 35 percent of needed support will continue to be provided by the Reserve Components.

M1 TANK PROGRAM

Senator LEVIN. General Meyer, how confident are you that you will be able to produce the number of tanks you have authorization for in fiscal year 1982 and have requested in fiscal year 1983? With respect to production rates of M1's, how far behind plan and the PM's estimate are actual deliveries? What is the status of the opening of the M1 production facility at the Detroit Tank Plant? What are the pacing items of production? Given the current governmental budgetary problems, what are the Army's plans for ramping up to higher levels of monthly production?

General MEYER. The Army is confident we will be able to produce the tanks for which the Congress has provided funding in fiscal year 1982 and for which we seek funding in fiscal year 1983. The M1 production capability was reviewed in detail by both the Army and the Office of the Secretary of Defense during M1 Program Reviews conducted respectively in August and September 1981. As a result of those reviews, the Secretary of Defense granted the Army permission to enter full production and produce all the tanks for which we have received funding. The results of this review process are supported by the actual M1 deliveries during October, November, and December of 1981 and January 1982. The combined deliveries of those four months exceeded the PM's earlier forecast by eleven tanks (112 scheduled/123 delivered), even though our January deliveries were eight tanks below forecast. This shortfall resulted from December's production of 38 tanks, 10 above forecast, because some components scheduled for assembly in January were used in December. At the end of January, our deliveries totaled 296 M1's, three more than the 293 forecast by the PM, but two fewer than the contract schedule of 298. We estimate 31 tanks will be produced in February, which will put us on both the PM's forecast and the contract schedule. The Army is now assembling M1 tanks at the Detroit Arsenal Tank Plant. The first two deliveries from Detroit are expected in March 1982 as originally planned.

The M1 production pacing items have been the engine, the tank's thermal imaging system (TIS), and Chrysler's manufacturing organization. The production problems associated with the engine and the TIS have improved significantly over the last six months. Chrysler's manufacturing procedures have also shown improvement in recent months. All three areas will continue to receive intensive management. While we have not completely solved our production problems, we are cautiously optimistic about future production capability.

Notwithstanding that our procurement plan now contains eighty-two fewer M1's in fiscal year 1982 and fiscal year 1983 than originally planned, the Army still intends to achieve the M1 production ramp-up roughly according to the original schedule. The Army should start producing 60 tanks per month in November 1982 and 90 tanks per month in February 1985.

Senator LEVIN. General Meyer, after DT/OT III, the M1 tank did not meet the RAM-D requirement for maintenance ratio, power-train durability, and track life. Have there been any improvements in these areas based on test data or operational data?

General MEYER. During recent testing of the M1 tank, the maintenance ratio has dropped from 1.7 hours of maintenance per hour of operation to 1.34, slightly above the requirement of 1.25, and better than the 1.5 currently experienced by the M60. As the crews and mechanics become more familiar with the new M1, the maintenance ratio will be further reduced. We expect to meet this requirement.

Operational and Development Test III results show the M1 tank is exceeding its combat reliability requirements (350 mean miles between failures demonstrated versus 320 required). The current Army assessed value of the M1 power-train durability is P(.37), versus the requirement of P(.5).

During the period June–August 1981, a Blue Ribbon Panel was convened by the Army to assess the current status of and the prognosis for the M1 tank power-train durability. Their assessment is that most of the previously identified failures of the power train have already been corrected in production and, upon implementation of previously identified corrective actions the power-train should meet or exceed the required durability in tanks delivered after March 1982.

Production tanks from Lima Tank Plant will be used as power-train durability demonstration vehicles to verify the effectiveness of power-train modifications. The PM is currently conducting a two tank power-train durability demonstration at Aberdeen Proving Ground, MD. To date, these two tanks have accumulated 3,000 and 5,000 miles respectively with no power-train failures.

There has been no change in track life of the M1. The slightly heavier weight and increased speed and acceleration of the M1 have placed a degree of stress on the track not experienced by previous tanks. The Army has initiated programs to improve track durability, not only for the M1 but for all tracked vehicles. This will take time and may be dependent on technological advances rather than use of existing materials and design. We do not expect to meet the track durability goal in the near term.

M60 TANK

Senator LEVIN. General Meyer, did the M60 tank have problems with its engine when it was first deployed? What had to be done to correct those problems? In terms of power-train reliability and durability, how is the M1 performing, relative to the M60, at this point in its lifetime?

General MEYER. The M60 tank power train durability early in its history was below current M1 power train durability. Though the Army did not have the same test requirements when the M48 and M60 tanks were tested as compared to those applicable to the M1, available M60 data was evaluated when M1 requirements were established.

Our best estimates from this data (M60A2) indicate a combat reliability of about 242 mean miles between failure (MMBF) with a power train durability estimated at approximately .25 probability of achieving 4,000 miles without failure. Bear in mind this is for a tank automotive system that had been in the field for 12 years. The Army recognized this performance was lower and desired and placed a much higher requirement on the M1, that is, a combat mission reliability of 320 MMBF and power train durability of .5 probability of achieving 4,000 miles without failure of a power train component. In effect, we set the durability standards for the M1 at about twice the level of the M60's performance and increased the reliability requirement over thirty percent. Recognizing that M60 performance was too low the Army initiated the Reliability Improvement for Selected Equipment (RISE) program to upgrade the M60 power train.

Now, where are we today? Intensive efforts with the M60, the RISE and other RAM-D programs have resulted in increasing the combat mission reliability of the M60A3 to about 406 mean miles between failure with a power train durability of .79 probability of achieving 4,000 miles without failure. The M60 is a very reliable vehicle after 22 years of production and field experience.

Where do we stand with the M1? Currently the M1 is demonstrating a combat mission reliability of 350 mean miles between failure; 30 miles higher than the es-

tablished requirement and a .37 probability of achieving 4,000 miles without power train failure; .13 below our requirement. These data were computed from test results of the initial year's production vehicles. We are very pleased with the combat reliability of the M1 and believe the durability requirement will be demonstrated in testing that will begin in May of this year. When we consider where we are in second year production of the M1 compared to 22 years production of the M60 we believe we are doing well. We expect to see continued growth in both reliability and durability of the M1 as the system matures.

M1 TANK COSTS

Senator LEVIN. Today, each M1 costs about $2.6 million, or over $2 million more than originally estimated in 1972. Many explanations have been provided as to the causes for the increase. What percentage of this increase is caused by inflation, labor costs, materials, program changes, schedule stretch-out and revised estimates of the original projections? How do you justify this price when the original cost of the tank was estimated at one-half million dollars?

General MEYER. In fiscal year 1983 (budget year) constant dollars, we estimate that the program acquisition cost of each of 7058 M1's is about $2.4 million. This price includes the fully inflated cost of the tank, its development (R&D), spare parts, training devices, transportation, support, and initial tooling and facilitization. It also includes the average incremental costs associated with the product improved M1E1 to be produced beginning in August 1985. Finally, the $2.4 million reflects the result of more than doubling the programed tank buy from 3312 to 7058, and subsequently opening a second tank plant and increasing our planned production rate so we could field the M1 in a reasonable period of time.

Now, the half-million dollar figure; that was our cost estimate eleven years ago of the hardware cost of the tank. It was in fiscal year 1972 constant dollars and did not include the development, support and other costs I mentioned as components of the $2.4 million fiscal year 1983 constant dollar figure. The early development estimate that does compare to the $2.4 million figure is $.72 million (fiscal year 1972 constant dollars). While this figure is $1.7 million above the fiscal year 1972 estimate, well over 90 percent of the increase is directly attributable to inflation. After subtracting the price decrement due to the increased quantity now programed, all of our other program changes increased the tank's cost by less than 10 percent. These changes include the significant value added which we will receive from the product improvements and quantity increases I have described, as well as minor estimating and support adjustments. The only significant schedule change in the M1 program is the higher production rate required to deliver the 7,058 tanks now programed.

I hope this rather involved answer helps explain the oft-quoted but misleading comparison between the M1's original estimated hardware cost and its fully inflated total program cost which includes product improvements and support costs. The key point I would emphasize is that while the M1 is expensive, there has not been runaway cost growth. Further, the M1 is an excellent tank with good growth potential. It is now reaching the field and our soldiers are very enthusiastic about it.

CRITICISMS OF M1 TANK

Senator LEVIN. General Meyer, the M1 tank program has come under criticism for not sufficiently addressing the logistics and support requirements which need to be met to deploy the tank. It has been charged that an over-emphasis by the Army on procurement of hardware has resulted in its inability to support the tank in the field when it is deployed early this year. Yet I understand that the Army's Integrated Logistics Support Package for the M1 will enable the tank's deployment this year, is that not so?

General MEYER. Yes, our ILS package is currently supporting a battalion at Fort Hood and deployment of the 1st Bn in Europe. From all reports this support has been adequate. In June 1976, immediately after M1 prototype selection, logistics support efforts were intensified and special tools, test sets, technical manuals, and other Integrated Logistics Support (ILS) requirements were developed and tested. The tank's ILS was refined as a result of Development Test/Operational Test (DT/OT) III. This support has been possible as a result of the intensive management by the M1 Project Manager, FORCES Command, U.S. Army Europe, and the Army Staff all directed toward assuring that adequate support for the M1 battalions is provided. Repair parts provisioning is on schedule, an adequate number of test sets are on-hand, as are operator and maintenance technical manuals. In addition, contractor technical representatives are available, if needed, to assist in additional training and provide immediate assistance on unusual maintenance problems.

Senator LEVIN. Mr. Secretary, the Army is presently procuring and delivering the M1 main battle tank to various units in the United States and Europe. Development and production problems, however, have delayed deployment of the tank and increased its estimated cost.

A recent General Accounting Office report stated that vehicles to support the M1 tank in Europe are in short supply. The report indicates that the Army will be diverting trucks that have been used to support the M60 tanks in Europe to support the M1. Is this the present Army policy? To what degree will M60 readiness be degraded? Does the Army have a plan to correct this problem?

Secretary MARSH. If the General Accounting Office's statement concerning the shortage of vehicles to support the M1 tank in Europe refers to the recognized Army-wide 2½ ton and 5 ton truck shortages, then that statement is correct. However, the Army has no policy to divert trucks from M60 units in Europe to support the M1 units. Rather than forming new units, we are transitioning M60 units to M1 units by exchanging tanks, training crews, and issuing M1 special tools, test equipment, technical manuals, and repair parts. The additional trucks necessary to overcome past shortfalls and field M1 units at full capability were provided from CONUS stock. This was a conscious decision, made to insure there is no degradation of unit readiness at the expense of M1 fielding. We feel that once the fielding of the new 5 ton and 10 ton trucks begins, the Army's overall truck shortage will be lessened.

ARMY READINESS

Senator LEVIN. Mr. Secretary, there is a growing concern about capability or readiness of our Army forces to conduct military operations. Although readiness is difficult to measure and the measurements are open to various interpretations, the Army has indicated that readiness problems do exist.

How many of the total Active Army units are combat-ready today? How many of the Army Reserve and the Army National Guard units are combat ready?

Secretary MARSH. The United States has a most professional and formidable Army which is faced with many varied and far-ranging tasks. The Total Army is made up of mutually supporting and mutually dependent components: the Active Army, the Army National Guard, and the U.S. Army Reserve; our dedicated civilians are an essential part of and support each of the military elements.

As you know, force readiness is a measure of the Army's ability to man, equip, and train its forces to mobilize, deploy, and sustain them as required to accomplish assigned missions. I rely on a number of important inputs to assess our force readiness.

Before presenting unit status "C" ratings, one of the measures of overall readiness, it is important to understand that the Army does not resource all its units at a level where the unit can attain a "fully combat ready" or "C-1" status. We resource the bulk of the Army at lower authorized levels of organization (ALO) to maximize prudent use of resources (manpower spaces, personnel, and equipment). As a result, we do not expect those units, in peacetime, to attain a "C-1" status. For example 10 of our Active Army Divisions are resourced at ALO 2 and our goal, in peacetime, is to attain a "C-2" unit status rating.

The measurement of unit readiness—or as we prefer to call it, unit status—is largely objective. The Unit Status Report gives us the current status of units measured against fixed standards. The Unit Status Report yields the C-ratings that are so popular in the press these days. I would caution you at this point that the C-ratings are only one measure—although a very important one—of a unit's ability to accomplish its mission.

In the Unit Status Report we objectively measure personnel and equipment status against a designed unit organization that reflects total mission capability. These measurements include: Number on hand versus number authorized; actual grade structure versus authorized grade structure; and equipment serviceability versus technical manual standards.

The measurement of training is both subjective and objective. Training is given a C-rating by the commander based on his evaluation against certain standards and guidelines.

[Deleted.]

Reserve Component units report bi-annually. [Deleted.]

The two most critical tasks facing the Army today are equipping the force to improve readiness and providing a sufficient level of modernization to assure deterrence. Current equipment shortages adversely affect both the equipment readiness of units and the Army's ability to sustain its forces in wartime. Reserve Components

(RC) equipment shortages are particularly acute. Most RC units have enough equipment to support training programs, but many late deploying RC and AC units would be unable to perform their combat missions. The fiscal year 1983 budget begins important procurement programs aimed at reducing these shortfalls.

Over the past fiscal year, the Army's successful recruitment and reenlistment programs have led to higher end strength and higher standards for reenlistment in all components. We still face end strength shortages against wartime requirements in the RC and selected grade and MOS imbalances, but programmed initiatives should improve these areas. The fiscal year 1983 budget projects civilian strength at just over 386,000, an increase of approximately 3,000 over fiscal year 1982. Efforts continue to free the Army's civilian and military personnel from tasks that can be fulfilled at lower costs by commercial contracts or by a totally civilian operation.

Units must train as they expect to fight. Training programs begun in fiscal year 1982 have improved the status of training in the Army and improvement should continue with the fiscal year 1983 budget. We are working to improve the effectiveness of our battlefield training by conducting live-fire exercises in simulated nuclear, biological, chemical and electronic warfare environments. Realistic and challenging unit combat training is underway at the National Training Center at Fort Irwin.

Several RC initiatives will improve the combat and mobilization readiness of the Total Army. The Capstone, Partnership and Affiliation Programs provide an opportunity for RC units to train with Active Component units in their wartime roles. Problems exist, but we are making progress.

In summary, we have a good Army and we're getting better. The fiscal year 1983 budget will provide many of the improvements needed, but it will not fill all the serious gaps. In building the budget, we sought a sensible balance between readiness and our force stucture today and modernization for tomorrow.

C-RATING STATUS OF ACTIVE ARMY UNITS

	C1	C2	C3	C4	C5
Army divisions:					
ALO 1—6					
ALO 2—10					
Separate Brigades:					
ALO 1—2			[Deleted.]		
ALO 2—6					
Armored cavalry regiments:					
ALO 1—2					
ALO 2—1					
Air cavalry brigade:					
ALO 2—1					

C-RATING STATUS OF ARMY RESERVE UNITS

	C1	C2	C3	C4	C5
USAR brigades:					
ALO 3—3			[Deleted.]		

C-RATING STATUS OF NATIONAL GUARD UNITS

	C1	C2	C3	C4	C5
ARNG divisons:					
ALO 3—8					
ARNG Brigades:					
ALO 1—2			[Deleted.]		
ALO 3—20					
ARNG armored cavalry regiments:					
ALO 3—4					

ARMY CIVILIAN FORCE

Senator LEVIN. Mr. Secretary, does the Army plan to increase its civilian forces to allow more uniformed personnel to take combat jobs? Did the Army increase its civilian force last year? By how much?

Secretary MARSH. The Army has initiated a modest civilian substitution program beginning in fiscal year 1983. When fully implemented, the program will place 4,000 civilians in positions and thus release military personnel to other higher priority force structure needs. In fiscal year 1981/fiscal year 1982 the Army increased its civilian workforce by 21,800. Of the 21,800, 16,800 were used to replace borrowed military manpower, allowing soldiers to return to their tactical units. Both individual and unit training and readiness were improved. The remaining civilian spaces were allocated to reduce depot maintenance backlog and meet requirements associated with both supply and contract administration.

REFORGER 81 EXERCISES

Senator LEVIN. Mr. Secretary, last fall the Army participated in the Reforger exercise which tests the U.S. capability to deploy troops to Europe in support of the NATO mission. Were you satisfied with the results? How far in advance did the Army know of the exercise?

Secretary MARSH. Reforger 81 (the thirteenth strategic reinforcement exercise of that name) successfully deployed 16,439 soldiers from 72 Active and 34 Reserve U.S. units. The deployment by air and sea afforded an opportunity to evaluate our deployment procedures as well as provide valuable experience/training to the numerous participants. The deployment, POMCUS (Prepositioned Materiel Configured to Unit Sets) equipment draw, and the FTX were professionally conducted and indicative of the prior planning and coordination so essential to an exercise of this magnitude. Additionally, successful employment of three Infantry Battalions from the 7th ID demonstrated the ability of light infantry to defend key positions in wooded, hilly or built up terrain in Europe.

Major Reforger participants (Corps/Divisions) are normally aware of their participation 2 years in advance. The exercise is funded under the JCS/directed/coordinated exercise program. Budgeting requirements as well as peacetime constraints require early identification of major participants. Reforger does include a no-notice EDRE (Emergency Deployment Readiness Exercise) named Golden Thunder which requires selected units to deploy within 72-96 hours after notification. The 40th Supply and Services Company and 416th Medium Truck Company were the Golden Thunder units deploying in Reforger 81. Deployment criteria and critical requirements were met.

Senator LEVIN. Mr. Secretary, if no warning was provided, as in Reforger, how long would it take to deploy the troops the Army sees as necessary to repel a Soviet attack? Are any of these Reserve and National Guard units?

Secretary MARSH. The current approved plan for the reinforcement of Europe is based on the [deleted].

We are supporting this plan with an ambitious program of prepositioning equipment, procuring fast sealift and obtaining strategic airlift to help us meet our reinforcing commitment. The key to rapid reinforcement of Europe in time of crisis is prepositioned stocks and an increased strategic mobility capability. The objective of POMCUS (Prepositioned Materiel Configured to Unit Sets) is to enhance the strategic deployment time in response to a Warsaw Pact attack against NATO's Central Region. POMCUS permits the first reinforcing division to close in Europe [deleted]. It will take until [deleted] to fulfill our total NATO commitment. This allows the United States to have [deleted] which comprises about [deleted]. However, the Joint Chiefs of Staff have established a requirement of [deleted] as necessary to provide reasonable assurance of executing the NATO mission.

Reserve components contribute [deleted] a number of separate infantry and armored brigades, and the majority of U.S. Army combat support and service support units to the NATO commitment.

ARMY CAPABILITY TO TRAIN MANY VOLUNTEERS AND INDUCTEES

Senator LEVIN. General Meyer, I understand that in a worst-case scenario the Department expects the Selective Service System to deliver a total of 100,000 inductees in 30 days. This schedule raises a number of questions. How soon would this initial element of 100,000 be trained and ready for assignment to combat units? What is the current capability of the Army's training base to absorb and train large num-

bers of volunteers and inductees with minimal advanced preparation? In dollar terms, how much does the Army require to reach that capability?

General MEYER. Of the 100,000 inductees requested by the Department of Defense during the first month following mobilization, almost all inductees will come to the Army. The first of those inductees will start processing at M+14 and begin training at M+17. Inductees (as well as volunteers and others) will be trained and ready for assignment to units approximately 100 days after induction. Thus, the final contingent of the first month's inductees will reach their units approximately 130 days after mobilization.

During the first month following mobilization, the Army currently has the capacity to accept 93K new soldiers (includes inductees, volunteers and others) for training. Shortages, primarily in training equipment are now the limiting factors on that capacity; the first month's capacity could be as large as 151K if adequate equipment were available to the training base. Funds currently projected through fiscal year 1986 of the Army Program will provide equipment levels adequate to support the first month's input of 151K under emergency conditions. It is estimated that an additional $900 million will be required to provide additional training equipment to support training inputs for the following 2 months to raise those capacities from 57K and 42K to 150K and 50K. This amount will not satisfy the full wartime requirements of the entire mobilization training base, but will achieve the stated capacities for the first three months of mobilization.

Although equipment is the primary constraint to accepting more trainees, the training base also lacks sufficient training facilities, ammunition to support training and selected trainers. Specific dollar values are being developed and will be included in future Army programs.

U.S.-NATO COMMUNICATIONS INTEROPERABILITY

Senator LEVIN. DOD officials of previous administrations have stated their concern that the communications equipment of our armed forces in Europe lacks adequate interoperability with the communications equipment of our NATO allies. Could you inform us what the Army and our NATO allies are doing to resolve this most critical problem?

Secretary MARSH. There is a spirit of cooperation among the allies to solve these problems by providing fixes to equipment now in the field and by agreeing to technical standards to avoid problems with future equipment.

For example, to allow an automated interface between our telephone switchboards, a NATO standardization agreement (STANAG) has been published. For equipment now fielded, an interface device has been successfully tested in Europe and is in production in this country.

Presently, the Army is actively participating with many NATO working groups preparing STANAGs for communications and electronic equipment. These and other documents deal with future concepts, telephone, radio, data, facsimile, and electronic counter measures (ECCM).

The Joint Tactical Communications (TRI-TAC) Office is active in these standardization proceedings and is committed to producing equipment that will be interoperable with allied equipment built in accordance with STANAGs.

Since these solutions are in the future, a method presently employed by units is to exchange communications teams with counterpart allied units. Unfortunately, this diverts equipment from other requirements.

PERSHING II

Senator LEVIN. Mr. Secretary, your budget submitted last week when compared to your budget submitted last March shows a unit cost increase for the Pershing II missile of 87 percent in 1982 and 120 percent in 1983. You stated in your letter to the chairman on February 8th that these cost increases are primarily attributable to contractor and Army underestimation of manufacturing complexity. Do you believe the projected costs of this system represents the most accurate and justifiable proposed by the contractor?

Secretary MARSH. The fiscal year 1983 Pershing II budget reflects production costs based on the prime contractor's fiscal year 1982 and fiscal year 1983 production proposals as modified by the Army's best estimate of what the final negotiated production costs will be. At present, the Army is completing a "should cost" analysis of the contractor's proposal and will begin contract negotiations next month. We expect to have a negotiated contract for fiscal years 1982 and 1983 production by this June. At that time, we will have more confidence in our estimate of the production costs. However, emerging results of an ongoing base cost estimate indicate that the cur-

rent budget estimate is accurate and justifiable. It should be noted that the Army feels that the equivalent battery set unit cost is a better measure of the procurement unit cost than missile unit cost. This approach includes ground support equipment such as erector/launchers and platoon control centrals in the computation and therefore gives a more accurate indication of the cost of the total system. Using this approach, the equivalent batter set procurement unit cost growth is 29.5 percent in fiscal year 1982 and 52.9 percent for fiscal year 1983.

PATRIOT

Senator LEVIN. General Meyer, what performance requirements established in the Decision Memorandum of the Secretary of Defense for extended testing of the Patriot missile have yet to be accomplished? When are these performance requirements to be accomplished?

General MEYER. Excellent progress has been made on the Patriot program since the DSARC III. Test results have met or exceeded the performance requirements established by the Secretary of Defense Decision Memorandum in all areas except maintainability. A comprehensive program has been developed and implemented to mature the systems status monitor and maintenance diagnostic capability. OSD has reviewed and fully supports the Diagnostic Performance Improvement Plan. Maintenance performance goals to be achieved at maturity and the levels to be demonstrated in the follow-on tests in mid-1983 are in the process of being established in accordance with the provisions of the Decision Memorandum.

LIGHTWEIGHT ARMORED VEHICLES

Senator LEVIN. General Meyer, the Army has requested procurement of nearly 200 lightweight armored vehicles. Which Army units will receive these vehicles, and what is their role in the overall Army mission?

General MEYER. The lightweight armored vehicles which you refer to will be used to primarily equip the developing High Technology Light Division (HTLD). The first prototype of this division will be fielded in fiscal year 1985. The 9th Infantry Division at Ft. Lewis has already begun a deliberate transition to the emerging HTLD configuration. Current plans provide for two Mobile Protected Gun Battalions to be fielded in the 9th Infantry Division by the end of fiscal year 1986. Other light divisions will be transitioned to HTLD's as soon as possible thereafter. Tentatively these divisions are the 7th and 25th Infantry Divisions. In addition, elements of the 2nd Infantry Division and the 82nd Airborne Division will also be equipped with these vehicles.

These divisions will provide highly deployable, capable, and technologically enhanced, contingency mission forces to the Unified Commands. They are being designed to execute the operational concepts contained in the Air Land Battle Doctrine. The HTLD is being optimized for employment in South West Asia but will have great utility for worldwide contingencies.

COST GROWTH IN ARMY SYSTEMS

Senator LEVIN. Secretary Marsh, there have been numerous reports in the press about cost growth in Army procurement programs. What actions are you taking to bring this cost growth under control?

Secretary MARSH. The Army is currently attacking the cost growth problem on many fronts. We have convened an ad hoc Cost Discipline Advisory Committee made up of five senior executive from private industry who recommended 62 initiatives to help control costs. Prior to that, the Army formed an internal working group to work on that same problem. That body recommended 20 actions. We are now beginning the implementation phase of that effort with a target date of June 1982 for implementation. Some of the major actions coming out of this effort are an upgrading of our cost estimating methodology, a monthly report to senior managers of the program manager's personal assessment of his program, and an improvement in our Selected Acquisition Report system. We are also investigating the risk associated with the transition from development to production and attempting to convert that risk assessment into program considerations.

REPORT OF COST DISCIPLINE ADVISORY COMMITTEE

Senator LEVIN. Secretary Marsh, the report of the Cost Discipline Advisory Committee that you convened states: "The senior Army leadership does not receive a periodic report of the status of programs and contracts."

We have had a hearing on the AH-64 helicopter where, it turned out, lack of reporting from the project manager to the Army's leadership caused numerous problems. What is being done by the Army's leadership to obtain more timely information on major programs?

Secretary MARSH. We are developing an internal Monthly Program Status Report which will provide the program manager's personal assessment of his programs to senior Army leaders. This report should provide early information on cost and management problems. We will now require an annual baseline cost estimate on all major systems which should also provide more timely data for decision makers. Additionally, top managers will conduct a quarterly review of contractors Cost and Schedule Control data and the Selected Acquisition Report (SAR) prior to submission.

Senator LEVIN. Secretary Marsh, one of the recommendations of the Cost Discipline Advisory Committee is, on selected programs, to maintain two contractors through full-scale development to provide competition at the beginning of production. Do you have any candidate programs to try this approach?

Secretary MARSH. The Army has tried to maintain competition on major programs in the past. The Black Hawk helicopter, M1 tank and AAH were all competitive programs during various stages of development. At some point in each program it simply became unaffordable to maintain the competition. The cost discipline committee recognized this and went on to suggest that we maintain competition at the major component level. We agree with this concept and are actively pursuing it. In addition, we are looking at reintroducing competition on some components or programs already in production. Prime examples are the engine for the M1 tank and a second source for the FVS.

ARMY PORTION OF THE DOD BUDGET

Senator LEVIN. Mr. Secretary, does the Army's allocation of the budget for each year of the 5-year defense program after fiscal year 1983 maintain its "traditional" 25 percent of the overall defense budget? Please provide for the record the current and constant dollar totals for the Army for each year and its percentage of the total DOD budget in each year on current and constant dollar basis.

Secretary MARSH. The following table displays the current and constant dollar total obligational authority (TOA) for the Army for fiscal years 1984-87.

TOTAL OBLIGATIONAL AUTHORITY

[In billions of dollars]

	Fiscal year 1984	Fiscal year 1985	Fiscal year 1986	Fiscal year 1987
Current	70.1	81.2	90.8	98.6
Constant fiscal year 1983 dollars	66.2	73.0	77.8	80.6

The Army's relative share of the DOD budget may vary over time depending on force level requirements at a given time. To be consistent with relative shares in prior years, Army data for fiscal years 1984-87 includes DOD held contingencies for military and civilian pay raises.

[An Army Befitting a Great Nation—a joint statement by Hon. John O. Marsh, Jr., and Gen. Edward C. Meyer follows:]

AN ARMY BEFITTING A GREAT NATION

JOINT STATEMENT

BY

THE HONORABLE JOHN O. MARSH, JR.
SECRETARY OF THE ARMY

AND

GENERAL EDWARD C. MEYER
CHIEF OF STAFF, UNITED STATES ARMY
DEPARTMENT OF THE ARMY

BEFORE

COMMITTEES AND SUBCOMMITTEES
OF THE
UNITED STATES SENATE
AND THE
HOUSE OF REPRESENTATIVES

SECOND SESSION, 97TH CONGRESS

THE POSTURE OF THE ARMY AND
DEPARTMENT OF THE ARMY BUDGET
ESTIMATES FOR FISCAL YEAR 1983

INTRODUCTION

The United States has a most professional and formidable Army. And never before in peacetime has the Army had so many varied and far-ranging tasks. In Europe, we and our NATO allies face one of the largest and one of the most technologically advanced land forces ever established. In Korea, Army forces contribute to the U.S. presence on the eastern periphery of the Eurasian landmass. At home, our units, both active and reserve, prepare for a variety of worldwide contingencies, including those of the Rapid Deployment Force, which is designed to react to threats to our national interests in the Persian Gulf and elsewhere.

Throughout this posture statement, we frequently mention the Total Army. It is made up of mutually supporting and mutually dependent components: the Active Army, the Army National Guard, and the U.S. Army Reserve; our dedicated civilians are an essential part of and support each of the military elements. And even though many of the issues in this statement focus on the Active Army--largely because it is the first to use new equipment, organizations, and policies--we can accomplish our many missions only with the support and proper integration of the Total Army. We rely on the soldiers and civilians in the Army National Guard and the Army Reserve as never before, and they, and ultimately the Nation, inevitably inherit the fruits of the Active Army's experimentation. Hence, the Total Army, as well as the Congress and the people, must stay attuned to military issues of national importance, such as those reviewed in this statement, and to the threats against which we prepare.

Forebodings

We live in a world of crisis and violence, a troubled world of precarious peace that is generally maintained only by U.S. strength. When U.S. strength appears to weaken, peace is threatened. Without question, U.S. military power and resolve safeguard an uneasy truce.

The threats to us and our allies are many. Our principal adversary, the Soviet Union, has far more military hardware than it needs to defend its frontiers, and it has the capability to launch an attack with overwhelming quantitative and considerable qualitative advantages against us and our allies.

The Middle East is a land of turmoil, terror, violence, and bloodshed. Iran is torn by instability, and the possibility that the war between Iran and Iraq will escalate is cause for concern.

Africa, from the Mediterranean to the Cape of Good Hope, is beset by problems resulting from changing governments, shifting alliances, purges, and international conflicts. Complicating the domestic instability, the industries of developed nations vie for valuable raw materials found in abundance in Africa's lesser developed countries.

In Afghanistan, the Soviets continue to use brutal methods to crush the resistance against their puppets and themselves. In Southeast Asia, the boat people are a tragic commentary on local conditions. Terror stalks in Kampuchea, and the threat to South Korea is but tempered by the military forces opposite the forces of the Soviet world. Evidence of chemical warfare in Afghanistan and of chemical and biological warfare in Southeast Asia highlights a deadly threat.

In our own hemisphere, Cuba serves as a base from which guerrillas and propaganda are directed against the Caribbean and all of the Americas. Recent events in Nicaragua and El Salvador typify the potential and serious dangers to our southern neighbors and to our own vital interests in the Western Hemisphere.

Terrorism threatens our leaders and our citizens worldwide; our soldiers and other representatives of our government abroad are especially vulnerable. Terrorists are also a threat to our allied leaders. Successful coups or assassinations can rapidly change a stable situation into chaos. The extent of the terrorist threat was vividly portrayed by the September 1981 assassination attempt against General Frederick J. Kroesen, commander-in-chief, U.S. Army, Europe, by the pre-Christmas kidnapping of Brigadier General James Dozier in Italy, and by the assassination of Lieutenant Colonel Charles Ray in January. We are elated by the safe return of General Dozier and are most appreciative of the efforts and cooperation of our Italian allies. Even though the number of attacks against Americans by terrorists decreased in 1981 from nearly 300 in 1980, the severity of recent attacks has increased. Of particular concern is the ability of terrorists to strike individuals of their choosing at times of their choosing.

The threat of low intensity and irregular warfare exists in many lesser developed countries. Subtle threats from antimilitarists, neutralists, and pacifists disrupt our training and other activities and menace the resolve of many of our allies in more advanced countries. And every nation and every individual in the world is susceptible to the threat from nuclear weapons.

We live in a critical age.

Soviet Land Warfare

As stated, our principal adversary is the Soviet Union, a continental power occupying the core of the world's greatest landmass. It became a major power as a direct result of the achievements of its army, and its present and past leaders have viewed the world from the perspective of a continental power whose security depends upon a large land force. When Napoleon invaded Russia, Kutuzov's Russian Army bloodied the French nation-in-arms at the Battle of Borodino and subsequently witnessed the banishment of Napoleon from Russia and the Continent. In August 1939, Soviet leaders negotiated an alliance with Nazi Germany that allowed the Soviet Army to share in the dismemberment of Poland a month later and to assert Soviet influence in the Baltic. The pact was violated by the German attack against the Soviet Union in 1941, but the Soviet Army held and ultimately prevailed against the Third Reich.

These historical events establish a tradition that greatly influences Soviet national strategy, basic tenets of which are maintenance of a large army and commitment to territorial expansion. The Soviet land based conventional forces support the national strategy in many ways:

- By protecting the homeland and the expanded territories of Eastern Europe and the Kurile Islands.
- By maintaining internal security within both the expanded territories and the homeland.
- As the instrument of expansion and coercion on the periphery of the Soviet Union as in Afghanistan.
- As a major component of an emerging power projection capability as in Cuba, Vietnam, and Africa.

The Soviet Army is the linchpin of Soviet power, and either directly or through clients and surrogates, it can threaten U.S. interests in many areas with violence ranging from terrorism to nuclear war. Its continental force of over 180 active divisions, supplemented by 53 non-Soviet Warsaw Pact divisions, and the aggressive policy that it supports, however, can be effectively deterred, other than by nuclear threat, by ready land forces on the Eurasian landmass. The forces of our allies, in concert with U.S. forward-based forces, backed by capable, deployable reserves in the continental United States, serve this end.

The U.S. Army Today

Our Army's traditional mission is to deter any attack against U.S. national interests and, if deterrence fails, to be able to defeat any enemy in any environment. Unlike the armies of our allies, and to a greater extent than our sister services, our Army must therefore be trained and equipped to counter many forms of violence in widely differing climates and terrain: forests dictate certain tactics and equipment, deserts dictate others, nuclear and chemical warfare others.

The terrorist threat demands that we work assiduously to prepare specialized units to stop such lawless and inhumane activities as kidnapping and assassination. Low intensity and irregular warfare also require specialized units and training. At this low end of the spectrum of violence, our capable Special Operations Forces, such as Army Special Forces, psychological operations units, and civic action units, must prepare to protect our interests if a response is needed and if response by conventional forces is premature, inappropriate, or infeasible. Our two Ranger battalions are unequalled in their ability to counter a variety of threats. Our airborne forces are well prepared to move quickly to fulfill other contingencies. Our air assault forces capitalize on technology for swift battlefield mobility, and our light infantry divisions can deploy rapidly to reinforce forward-based forces or operate independently in still other contingencies. Finally, our heavy divisions, both mechanized infantry and armored, are worthy opponents for heavy Soviet units or for the heavy units of any other potential opponent.

To achieve the readiness needed to counter the broad range of threats against which our Army must be prepared, we need individuals throughout the Total Army who are exceptionally fit, both physically and mentally, and units throughout the Total Army that are extensively trained, properly structured, adequately equipped, tactically mobile, strategically deployable, and extremely flexible. Our readiness is a function of many of the issues discussed in this posture statement, but in spite of our readiness, our sister services must have additional outsize airlift and responsive fast sealift to improve our ability to deploy.

Because the Army serves the Nation, we expect close examination from our citizens and other public institutions. We recognize that we are faced with many problems that call for attention and resolution, but we are disappointed when our soldiers, programs, and policies are unjustly maligned. Much of the criticism of today's Army has focused on three issues: the quality and composition of our force; the manner in which we plan and train to fight; and the high cost of equipment.

We and our senior field commanders are pleased with the quality of our soldiers, and as we raise our recruiting and retention standards, quality will improve even more. We continue to study and to monitor closely the numbers, assignments, and other personnel statistics relating to our soldiers. We do this to ensure that the needs of the Army and the Nation are properly served and that the respect due our soldiers is properly given.

Today's Army seeks success in battle through the balanced and reasoned use of both firepower and maneuver, not through firepower alone as some critics claim. We are also criticized for using the methods of the last war rather than preparing for the next. Armies are constantly faced with choices between the doctrinal and tactical methods that brought success in the past and the desire to change to anticipate tomorrow's needs. But will the next war be a war of position like World War I or a war of maneuver like World War II or a war of some new genre? Myriad factors influence the answers to such questions, and the only prudent solution with regard to planning, training, and equipping is to prepare for as many contingencies, with special emphasis on the most likely and those with the most severe consequences, as resources allow. The value of the initiative and movement is embedded in military doctrine past and present, and even though the plans of our forward-based forces in Germany and Korea are strongly influenced by political and geographical considerations that dictate an initial defensive posture, maneuver is still a vital part of all our plans and training. The force we are building must be able to move rapidly, to generate massive firepower, to communicate well, to deploy rapidly, and to protect and sustain itself. Leaders throughout the Army must be confident and well-trained, and they must possess a high but disciplined degree of initiative.

With regard to equipment costs, no one can deny that they are high. But the argument that the cost is unnecessarily high because of "gold plating" or because the technology is too complex is unfounded. Technology is expensive, but we need it to survive and to be effective in battle because we cannot redress the quantitative imbalance. We must use technology to avoid a qualitative breakthrough by the enemy, for without technology we forfeit many advantages that can be achieved with sophisticated equipment. We owe our soldiers equipment that increases the likelihood of success in combat, that is sophisticated yet not complex, and that increases the chances of their surviving battle, and in spite of the cost, the Army must procure in FY 83 some of the equipment that will restore qualitative advantages to us.

Cost Awareness

We are acutely aware of our responsibility to use well and manage wisely the funds that the Congress and the American public have entrusted to us. Our goal is to provide the best defense capability achievable with the resources available.

Leaders throughout the Army have been directed to maintain well the resources in their care. There is no doubt that leadership responsibility includes the responsibility to use national resources efficiently, to be alert to situations where resources are wasted or abused, and to correct such situations promptly.

The absolute need to control cost overruns has focused attention on cost discipline. Both Department of Defense and our own directives seek to improve our ability to estimate costs better and to control costs throughout the acquisition process. We have also established a Cost Discipline Committee, whose members, selected from private industry, have reviewed cost discipline activities and developed recommendations to improve cost control. We are aggressively implementing those recommendations.

Economy and Efficiency

The simultaneous increase in funding for defense and the reduction of other federal programs have placed a yeoman responsibility on us. Secretary Weinberger has directed that we improve the management of our resources and eliminate waste and inefficiency. We, the Secretary and Chief of Staff of the Army, are now held personally responsible for justifying our budget proposals before the Defense Resources Board. When our proposals are approved, we are also responsible for implementing them. We can demand more of contractors and expect more in return. Accountability is reinforced through periodic performance review meetings with the Secretary of Defense.

The Department of Defense also examined the materiel acquisition process and provided 32 initiatives to improve that process. The principal objectives of the initiatives are to lower costs and to shorten acquisition time. In support of these initiatives, we are examining multi-year procurement, seeking more economic rates of production, using competitive bidding to the extent practicable, and using long-range planning to determine where product improvement and where new developments are needed.

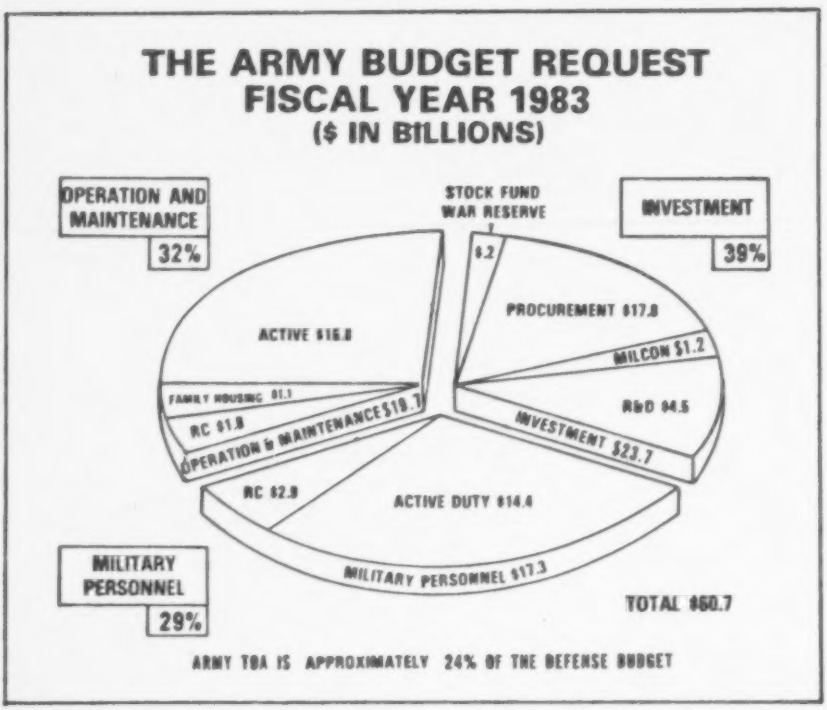
Within the Headquarters, Department of the Army, we have established an Economies, Efficiencies, and Management Improvement (EEMI) Program as a counterpart to the Department of Defense Management Improvement Program. A major objective of the EEMI Program is to encourage innovative management throughout the Total Army. The savings and cost avoidances that result from improved management enable us to fund many important programs that could not otherwise be accomplished. Efficiency has also been the reason behind changes in our Planning, Programing, and Budgeting System. These are continuing efforts, and we are pleased with our results to date.

Our Incentive Awards Program, Energy Conservation Program, and Value Engineering Program continue to result in the more efficient use of resources. Audited net savings as a result of the Value Engineering Program in fiscal year (FY) 1981 exceeded $375 million, an increase of nearly 51 percent over FY 80. We continue, too, to examine ways that commercial contracts can be used to perform base operation tasks at lower cost and to allow soldiers and civilian personnel to do the jobs for which they are better qualified. This program is discussed in greater detail on page 12.

Other cost savings have resulted from the diligent work of Army inspectors general, the Army Audit Agency, and the Criminal Investigation Command. Investigations resulting from fraud, waste, and abuse hotline referrals to these and other agencies substantiated allegations in 15 percent of the more than 820 Army-related cases reported since the program began in January 1979. The 362 cases reported in 1981 represent a 140-percent increase over the cases reported in 1980. Continued emphasis on this program and on economy, efficiency, and cost discipline ensure an Army-wide awareness of the absolute requirement to manage public resources well.

* * *

This posture statement discusses today's Army, its status, and its needs, and with the budget annex, the statement points out the areas where we have programed our fiscal year 1983 resources. In building this budget, overviewed in the following chart, we sought a sensible balance between readiness and force structure today and modernization for tomorrow. Our investment in the future, which includes procurement, military construction (MILCON), and research and development (R&D), totals over $23.5 billion. Our operation and maintenance request for both the Active Army and Reserve Components (RC) is for over $19.5 billion, and our personnel accounts total over $17 billion. Even though we are requesting over $60 billion in total obligational authority (TOA), we still fall short of fully meeting the obligations imposed by our global national interests.



Fully cognizant of the need for economy and efficiency, the Army is working with urgency to ensure, like our predecessors who fought at Yorktown and Gettysburg and confirmed this Nation's role as a world leader at places like Chateau Thierry, Normandy, Inchon, and also in Vietnam, that we are prepared for the tasks that lie ahead. With the support of the Nation and the Congress, we can have an Army better prepared for those tasks--an Army befitting a great nation.

THE ARMY'S STATUS AND NEEDS

The seven sections of the posture statement that follow provide a current view of the U.S. Army and our major programs for fiscal year 1983. Throughout we attempt to point out our concern for cost and our efforts to manage well the resources upon which we and the Nation depend.

Manning

. . . ask what you can do for
your country.

--John F. Kennedy

The greatness of our Nation has resulted from the strength and achievements of many dedicated individuals. The Army, too, depends on people; hence, one of our most important tasks is manning the Total Army with sufficient numbers of competent soldiers and civilians. The Army is the heir of a proud spirit that survived the winter at Valley Forge, that witnessed the birth of the Nation after victory at Yorktown, that opened the West, preserved the Union, and displayed uncommon valor on overseas battlefields during the past 100 years. That no foreign foe has seriously threatened the territory of the United States since the War of 1812 is testimony to the greatness of the Nation and its citizens. The traditions of overcoming adversity and serving with pride have become a part of our national heritage. These traditions prevail today.

Competent soldiers with an understanding of our national traditions and the desire to serve their Nation proudly and well are a precondition for a competent Army. Recruited individuals must have a sense of civic duty and the potential for learning the skills of their profession. They must learn and apply their skills in a soldierly manner, and throughout their service they must take pride in their performance with the awareness that their contributions to the Nation in peace and war are recognized and rewarded by incentives meaningful to themselves and their families. The key is competence: competent soldiers, competent leaders, and a competent personnel management system.

Recruiting:

The process of creating and sustaining a competent Army demands foremost the recruitment of men and women prepared and motivated to serve their Nation. The Army's ability to recruit and retain, therefore, has profound implications for the Total Army.

During the past fiscal year, the Total Army exceeded its enlisted recruiting objectives. Over 80 percent of the Active Army recruits without prior service were high school graduates, and the number in mental category (MC) IV--the lowest category accepted--was reduced to just under 31 percent, down from nearly 52 percent the previous year.

The Army National Guard recruited nearly 96,500 soldiers in FY 81 and achieved 100.7 percent of its objective. The Guard's recruiting success of recent years has resulted in end strengths that exceed budgeted strengths, and this favorable condition is expected to continue. The Army Reserve recruited over 66,600 soldiers and achieved 104.6 percent of its objective with the greatest success in the Southeast and Midwest. To bring recruits to the Guard and Reserve who might be interested in a college education, the Reserve Component Educational Assistance Program was particularly successful. During FY 81 nearly 6,500 soldiers enlisted under this program, which awards up to $4,000 in educational assistance in exchange for a 6-year service commitment. More than 28 states offered low-cost educational loans and other educational benefits to attract recruits for the Army National Guard, but only Hawaii offered similar benefits to the U.S. Army Reserve. Many states also provide tax-free Guard income, unemployment benefits, and free license plates to Guard personnel. Efforts to extend these benefits are underway. Community and state support provides not only financial benefits but a sense of appreciation essential to the recruiting and retention of good people.

The Active Army's recruiting objective in FY 83 is to recruit over 75 percent high school graduates but with MC IV comprising less than 20 percent of the total. Because the number of 17- through 21-year olds is declining, however, improved educational benefits are needed to allow us to compete successfully for college qualified youth. These young people benefit the Army in many ways, and because more tend to fulfill their service obligation than non-high school graduates, the number of individuals we must recruit and train is reduced.

Educational benefits are frequently cited by soldiers as a major incentive for enlistment, especially among bright, young people. Under the Ultra Veterans Educational Assistance Program (Ultra VEAP), nearly 4,700 soldiers have enlisted for 3 or 4 years in 1 of 62 qualifying specialties in exchange for benefits of up to $20,100. Soldiers who participate in this program, however, must contribute up to $100 monthly to receive full benefits. The success of the Total Army's educational incentive programs shows that many young people--though not necessarily careerists--are willing to serve the Army and the Nation in exchange for benefits leading to a college education. We strongly prefer non-contributory educational benefits for both Active and Reserve Components as recruiting and reenlistment incentives. The Army and the Nation will be appropriately rewarded by such a program.

Retaining:

The Active Army's reenlistment program in FY 81 achieved over 101 percent of its goal and has led to higher standards for reenlistment, a refreshing reversal from the days when we could not be as selective. This recent success, attributable in large part to Congressional support, offers us choices that the Volunteer Army has not had previously, but the success derives, too, from economic and social factors that we must watch carefully.

Recent success in Total Army reenlistment programs has resulted in end strengths that surpass those programed for each element of the Active Component and the Selected Reserve, but significant shortages still exist in the Individual Ready Reserve (IRR), which is our pretrained manpower pool, and in aviator strength. As a result of post-Vietnam war force reductions and the end of the draft, IRR strength declined from over one million men a decade ago to a low of under 150,000 in 1977. The current strength is about 213,000, and the FY 83 IRR desired number is 453,800. Efforts must continue to correct the deficiency. Army aviator strength is improving, and our warrant officer objective will be achieved during FY 83. The FY 83 budget includes funds to increase the number of warrant officer aviators trained from 800 to 1,000.

Managing:

In our efforts to create a better manning system, we are developing an American regimental system that is expected to promote cohesion and commitment to units with concomitant benefit to the Army and the Nation. One element of this new manning system is known as Project COHORT (cohesion, operational readiness, and training). Rather than sending soldiers to their first peacetime duty assignments as individual replacements, soldiers in COHORT companies will be trained as a company and stay together as a company through their first enlistment. The American regimental system will also allow and encourage soldiers and leaders to return to the unit of their initial assignment during subsequent assignments throughout their careers. Other aspects of the system include moving units rather than individuals to meet overseas stationing requirements and returning units to the same "homebase" after overseas duty. To further evaluate the concept, 11 companies will be recruited and trained in FY 82 and sent overseas in FYs 83 and 84. Reduced personnel turbulence is expected to improve cohesion, efficiency, and commitment.

Our soldiers, who carry the potential burden of combat, are supported by dedicated, experienced civilians. The FY 83 budget projects civilian strength at just over 386,000, an increase of approximately 3,000. The loss of high-grade, skilled civilians, often because of the Congressional pay limitation, has been a problem, but we are hopeful that the recently approved higher limits will alleviate this aspect of the retention problem. High-grade civilians are especially needed because they provide technical competence, advanced managerial skills, and institutional continuity to our Total Army.

We continue to study ways to free our personnel from tasks that can be fulfilled at lower cost by commercial contracts or by a totally civilian operation. Under our Commercial Activities Program, formerly the Commercial Industrial Type Activities (CITA) Program, more than 4,000 civilians and 1,400 soldiers are programed to be used more effectively during FY 82 as a result of commercial contracts. The FY 83 budget proposal supports the freeing of an additional 4,400 civilians and more than 1,500 soldiers. This program is too often criticized because some believe it is designed to lessen the importance of a job or to lessen salaries. In fact, the goal is to get necessary work done in the way that is most cost-effective.

Throughout the Total Army, we are proud of our equal opportunity programs. We are even prouder that equal opportunity is accepted and evident among our soldiers and civilians.

Manning the force is a complex, challenging task. In the vital areas of recruiting and retention, there is cause for optimism. Other personnel areas, such as IRR strength and aviator strength, however, continue to demand and receive our attention.

Training

No study is possible on the battlefield;
one does there simply what one can in
order to apply what one knows. Therefore,
in order to do even a little, one must
already know a great deal and know it well.

--Ferdinand Foch

The first priority of our unit commanders is training, and the resources to support the training mission will help them build and sustain a flexible and ready force. Initiatives to improve the training effectiveness of the Total Army accelerate in FY 82 and will continue in FY 83, but requirements to field new equipment and reorganize while concurrently sustaining a high state of readiness produce unprecedented challenges. As we introduce new equipment, reorganize our units, and provide realistic, mission oriented training, we must also modernize training facilities; construct ranges to accommodate new weapons; improve training management; and develop new training and simulation devices, which will allow us to train more effectively, especially with regard to costs.

The Training Base:

The Army training centers and schools provide our soldiers, noncommissioned officers, and officers with a solid foundation of individual skills, discipline, and standards. The FY 83 budget increases training base resources to provide for more students and longer programs and to support current programs and new initiatives. Programs begun in FY 82, such as expanded enlisted initial entry training, expanded officer basic courses, an improved Noncommissioned Officer Education System (NCOES), and renewed emphasis on specialty training programs, are improving our training base and the quality of Army leaders.

Even though these basic mission programs are financed at higher levels in FY 83, base support operations for training installations and activities still reflect the austere funding of the past decade. The FY 83 budget provides a partial restoration of personnel and funds needed to support the training base, but shortages remain whose resolution we are deferring to future budgets.

We continue to work hard to improve programs for training critical skill specialties of Army technical personnel, such as maintenance, missile, and signals intelligence (SIGINT) personnel. The FY 83 budget provides equipment for SIGINT training at Fort Bragg, North Carolina; Fort Hood, Texas; and Fort Lewis, Washington and for eight United States Army, Europe tactical SIGINT units. A better training base that provides better training to our leaders and soldiers results in a better and hence, more cost-effective Army.

Training Support:

The FY 82 budget and FY 83 request provide for some local training area and range facility improvement. Many of these improvements directly support the M1 Abrams tank, the M60A3 tank, and the M2/M3 Bradley fighting vehicles. The FY 83 request also provides for the acquisition and development of additional training land for the 4th Infantry Division at Fort Carson, Colorado.

Improved training devices, such as the Multiple Integrated Laser Engagement System (MILES), plastic ammunition, and training simulators, are funded to provide more realistic training in spite of small training areas and austere ammunition allocations. MILES, which uses lasers to score "hits" against opposing live forces, exemplifies the way in which training devices and simulators can contribute to more realistic training at lower costs.

The training ammunition and flight simulator programs are two of the most important programs that are funded at less than the optimum levels. While FY 82 training ammunition authorizations increased almost 10 percent over FY 81, a large gap still exists between needs and authorizations. To alleviate ammunition and fuel shortages and reduce concomitant costs, we plan to buy 20 new flight simulator systems by 1987 for the Active Army, National Guard, and Army Reserve. These systems provide realistic training in routine and emergency cockpit procedures. External simulations allow pilots to practice take-offs, landings, sling-load operations, and some antitank, 20-millimeter, and rocket gunnery training. Fuel and ammunition are conserved by using simulators, but live flying and live firing are still needed to verify and maintain pilot proficiency.

Unit Training:

Units must train as they expect to fight. Well planned and executed live-fire training builds cohesion and prepares units to fight and win on the future battlefield. Therefore, we are working to improve the effectiveness of our battlefield training by conducting live-fire exercises in simulated nuclear, biological, chemical, and electronic warfare environments.

In addition to exercises conducted at the home base, at major training areas overseas, and in maneuver areas, realistic and challenging unit combat training is underway at the National Training Center (NTC) at Fort Irwin, California. Although the center is not fully operational, 16 battalions will train at the center in FY 82, and we plan to send 20 battalions in FY 83 and 42 battalions in FY 84. The National Guard brigades that round out our active divisions and both National Guard and Army Reserve support units will participate in NTC training exercises. The NTC scenario includes deployment from home station, drawing equipment, and subsequent combat training and evaluation on an electronically instrumented, highly realistic, live-fire, air-land battlefield. When the 197th Infantry Brigade, from Fort Benning, Georgia, completed its training at the NTC this past summer, commanders stated that the experience was outstanding and that their soldiers' enthusiasm, skill, and confidence increased as a result.

The Skill Qualification Test (SQT) remains the foundation of our individual training program. The SQT evaluates a soldier's ability to perform specific job-related skills. The results provide commanders with the means to diagnose unit and individual strengths and weaknesses and to design training programs that correct deficiencies and reinforce and sustain essential skills. Since first fielded in 1977, manuals to support the program have been revised and the scoring system improved. The continued availability of resources necessary to sustain this program is critical to the training of individuals in our units.

Physical Fitness Training:

We have recently placed additional emphasis on the physical fitness of soldiers throughout the Total Army and throughout each individual's full term of service. As part of this effort, we will establish an Army Physical Fitness Center to develop state-of-the-art exercise programs and to train leaders in proper physical training techniques. We will also establish a surgeon general task force to design and promote programs for improved health and better living, and we will provide meaningful incentives to encourage and sustain high standards of physical fitness and soldierly appearance. We will continue the physical fitness and medical screening program begun in October 1980 for soldiers over 40 years old. Force readiness begins with the physical fitness of the individual soldier and the noncommissioned officers and officers who lead them.

Reserve Component Training:

Several important Army National Guard and Army Reserve initiatives will improve the combat and mobilization readiness of the Total Army. The FY 83 Guard and Reserve construction programs focus on close-to-home training facilities. We expect that these facilities will contribute to better recruiting, retention, and unit cohesion, as well as reduce travel expenditures associated with training drills.

The Army National Guard and Army Reserve training programs will also be strengthened by the FY 83 budget's support of the Capstone, Partnership, and Affiliation Programs. These programs provide Guard and Reserve units and soldiers an opportunity to train with active force units in their wartime roles, often at wartime deployment locations, and promote teamwork and confidence.

We are particularly pleased with the round-out concept, in which National Guard brigades and some Army Reserve battalions are assigned to active divisions. Round-out units have performed well, and the opportunity to serve with the Active Army raises the level of performance of all concerned. As an added benefit, a healthy attitude of cooperation and camaraderie has developed.

The Key Personnel Upgrade Program (KPUP) was begun by the Army National Guard in FY 81 to allow its noncommissioned and commissioned officers to train with active unit counterparts during exercises in which their Guard units do not participate. Congress provided more funds than requested in FY 82 for this program, and the resulting expansion of the program will continue in FY 83. The FY 83 budget also provides funds for additional annual training time for early deploying units and funds for training with British Territorial and Norwegian Army units.

Army National Guard and Army Reserve training programs are improving, but some problems persist. Approximately two-thirds of our maintenance and support units are in the Guard and Reserve, and even though the quality of their maintenance personnel is high, they need to train with the equipment they would maintain in war. That equipment is generally not available. Furthermore, skills required to repair sophisticated equipment, like tank turrets, fire control devices, and artillery pieces, must be learned in a structured training environment. Guard and Reserve units often lack an adequate training environment. Also, training devices and training time on the equipment available are generally not adequate, especially for mechanics and other support personnel. As modernization efforts accelerate, these equipment-related problems will grow significantly. Other Guard and Reserve programs, such as additional training assemblies, additional man-day support, training travel allocations, and resident school funds, have not kept pace with needs. These collective training needs are deferred to future budgets.

Joint Training:

Joint exercises are an important part of our training program. They emphasize overseas strategic deployment, tactical employment of forces, and operations with our allies. Joint exercises develop and maintain the Army's ability to deploy contingency and reinforcing forces rapidly, a task crucial for Rapid Deployment Joint Task Force (RDJTF) units.

The Army National Guard and Army Reserve play an essential role in joint exercises, too. For example, approximately 60 Guard and Reserve units took part in the annual return of forces to Germany (REFORGER) exercises this past autumn. The 441st Air Ambulance Company of the Kentucky Army National Guard deployed to Germany with its own helicopters. Over 200 Guard and Reserve units participate annually in

contingency and mission oriented training, many in the overseas areas where they would deploy. An Army National Guard brigade commander commented that the mobilization experience and sense of mission accomplishment gained during a two-week joint exercise with active units was greater than that "normally experienced in two or three annual training periods." We will continue to involve the Total Army in exercises to improve our mobilization and war-fighting capabilities.

The importance of such efforts was evident during the recent Bright Star 82 exercises. Approximately 4,000 Army troops trained with other U.S. services and allies in Egypt, Somalia, Sudan, and Oman. Valuable experience is gained by the planners of and participants in such exercises; new equipment, tactics, organizations, and procedures are tested; and the display of the capabilities of the U.S. Armed Forces contributes to the strength of our alliances by gaining the respect of allies, neutral states, and potential adversaries. During Bright Star, for example, political and military leaders from around the world undoubtedly took note when over 800 U.S. paratroopers, their weapons, equipment, and vehicles dropped into Egypt just 4 seconds off schedule after aircraft flying directly from the United States rendezvoused with aircraft flying from Europe.

The ultimate goal of training in our units, schools, and centers is to achieve and sustain proficiency. We must be perceived by potential enemies as tough, prepared, and able to deploy, fight, and win. This perception is guaranteed by first-class training and by officers and noncommissioned officers who are trained to be good trainers. Training is essential to readiness, and good training contributes immeasurably to cohesion in units and to pride throughout the Total Army.

Modernizing

When thunderbolts are available, they
should be used in place of cannon.

--Napoleon

As stated in last year's posture statement, our immediate objective with regard to force structure and modernization is to modernize the existing 24-division force before attempting to increase the number of divisions in the Total Army. We stand by this decision in our FY 83 budget request because it supports the two most critical tasks facing the Army today: first, equipping the force to improve readiness and second, providing a sufficient level of modernization to assure deterrence. Equipping the force is also necessary to ensure that we have a qualitatively competitive force should deterrence fail. We must not mortgage our future ability to oppose the Soviets on land by reducing our modernization efforts to achieve expensive near term readiness and sustainability goals that provide only marginal increases in combat capability.

With the adoption of our Total Army policy in the early 1970s and increased global responsibilities, the contributions of the Army National Guard and the Army Reserve have become critical--possibly even decisive--because when mobilized, the Guard and Reserve augment, reinforce, support, and sustain the active force as well as expand the training and logistic bases. They are a cost-effective means of fulfilling these essential functions, and they are also an important indicator of national resolve. Unfortunately, their readiness is impaired by serious personnel shortages, as discussed above, and by major equipment

shortages of nearly $6 billion in the Army Reserve and nearly $4 billion in the Army National Guard. Also, much of the on-hand equipment is old, inadequate, obsolete, or incompatible with equipment in the Active Army. For example, some Guard signal units cannot communicate with active units on all frequencies because of equipment incompatability; the only air defense units in the National Guard divisions are 30-year old 40-millimeter "Dusters," for which repair parts and ammunition are generally not available. In spite of difficulties, however, the equipping of the Total Army must be a high priority in fiscal year 1983.

Equipping the total force requires modernization efforts in three areas: first, with regard to organizations that use or maintain the new equipment; second, with regard to the equipment itself; and third, with regard to the facilities that support the organizations and equipment.

Modernizing Structure:

As stated above, the U.S. Army must be able to fight in varying climates and terrain and against opponents capable of operating at varying levels of conflict. To meet these requirements, the FY 83 Army will retain twenty-four combat divisions and many smaller specialized units. Eight of the twenty-four divisions will be Army National Guard divisions, and four of the sixteen active component divisions will include an Army National Guard brigade. Also, most of our armored cavalry regiments and separate brigades and approximately two-thirds of our support units will be in the Guard and Reserve. The National Guard divisions and the Guard brigades that round out our active divisions, like other Guard and Reserve units, are made up of leaders and soldiers who have spent time with the active force and who are well experienced and motivated; however, the resources we can afford to give the Guard and Reserve fall far short of what we would prefer to give them.

In spite of the equipment needs of our present force, our assessment of future needs leads us to plan for a force structure objective of 26 divisions by the late 1980s. We must also provide units dedicated to rapid deployment missions, Special Operations Forces, and other forces capable of dealing with the broad spectrum of threats to our national interests. To move toward our goal, two military intelligence group headquarters, two military intelligence battalions, one air defense artillery battalion, and ten company-size units will be added to the Active Component in FY 83, and sixteen battalions will be modernized as a result of major system changes.

The modernized battalions result from the introduction of: UH-60 Black Hawk helicopters to three combat aviation battalions; Bradley fighting vehicles to three mechanized infantry battalions; Multiple Launch Rocket Systems (MLRS) to two 8-inch field artillery battalions, which will become composite 8-inch/MLRS battalions; and the M1 Abrams tank to four armored battalions and four armored cavalry squadrons. The transition to the M1 Abrams in U.S. Army, Europe began in January 1982. Each battalion receiving the Abrams will go to Vilseck for a comprehensive training program conducted by an experienced New Equipment Training (NET) cadre. The first battalion to receive the M1 is from the 3d Infantry Division, and maintenance and support personnel from the 3d have completed their specialty training. Nearly all the repair parts and all the manuals and special tools required to support the tank are on hand, and experienced M1 personnel have been assigned to the battalion. This comprehensive transition program illustrates the detailed planning needed to field the many new major systems entering the force.

Our logistical force structure remains austere. The FY 83 budget funds the activation of only two company-size logistics units, but the program beyond FY 83 includes activation of more than thirty such units. The Active Component combat service support structure needs additional increases to reduce the risk that logistic deficiencies might halt combat operations, but we cannot reasonably include all of these increases in the FY 83 budget.

To improve further the Army National Guard and Army Reserve units supporting the Rapid Deployment Force, we are asking for the assignment of additional full-time soldiers, additional drill periods, and other improvements for combat support/service units. To improve the mobility of forward medical support, the mobile army surgical hospital (MASH) has been redesigned, successfully tested, and added to the force structure. Conversion of five Active and six Army National Guard and Reserve combat support hospitals to the MASH configuration will be accomplished in FY 83. As many as twenty MASH units will be added later.

In order to provide both our division and our non-division units the reconnaissance and decontamination support required to sustain operations in a nuclear, biological, or chemical (NBC) environment, twelve NBC companies have been activated since 1979 for the sixteen active divisions, and three NBC companies have been activated to support other units. In FY 83, two NBC companies will be activated to support two more of the active divisions.

Many organizational changes will result from the Army 86 studies, which had two objectives: first, to design forces for the late 1980s and 1990s that will most effectively use modern, high technology equipment; and second, to revise associated doctrine. The Army 86 studies include: the Division 86 study, which deals with armored and mechanized infantry divisions; Infantry Division 86; Corps 86, a NATO Corps; Echelons above Corps, which identifies units needed to support a NATO corps; and a contingency corps study. To implement the force structure changes resulting from these studies, the Army 90 Transition Plan was developed. Conversions will not be completed until the early 1990s and will be coordinated with the fielding of new equipment and weapon systems.

Some battalions in armored and mechanized infantry divisions will transition to Division 86 designs during FY 83 using personnel and equipment assigned to the divisions at the time of transition. Within these divisions, remaining battalions will continue their transition to the more effective Division 86 structure as new systems are fielded. The conversions require funds for military construction, personnel moves, acquisition of supporting equipment, and one-time operational costs. The resulting divisions will be better able to support themselves and far more capable than current divisions.

The Army's High Technology Test Bed (HTTB) project involving the 9th Infantry Division at Fort Lewis, Washington is proceeding on schedule and will help us develop a lean, hard-hitting force--a new high technology light division (HTLD) that exploits technology and human effectiveness training and that will be rapidly deployable, tactically mobile, highly lethal, and considerably self-sustainable. Our objective is to expedite the fielding of new equipment and new organizations in the HTLD and to create ultimately, as a result of those tests, a prototype light division in about 1985. The HTLD is being designed to respond to worldwide contingencies, including NATO, but focuses on the Middle East and Southwest Asia.

Modernizing Equipment:

The quantitative advantage that the Soviets have enjoyed for years in weapons systems, equipment, and manpower is well known and continues to increase. More recently, however, the Soviets have gained qualitative advantages in certain areas that result in imbalances that are totally unacceptable. The United States has the greatest technological capability and one of the strongest industrial bases in the world. We must use these assets to provide equipment that can outperform Soviet equipment and thereby compensate, to the extent possible, for the Soviet numerical advantage.

Our research and development effort of the last decade has matured, and we are now procuring equipment that can restore much of the qualitative edge. Many of these new systems have been ready for production for several years, but dollar limitations have forced production to be stretched out or deferred or in some cases terminated. The FY 82 budget improved that situation by increasing our funds by 11 percent over FY 81. Much of the increase went into procurement so that we could buy tanks, helicopters, fighting vehicles, trucks, communication equipment, and other support items and place them in the hands of our soldiers sooner than we thought possible one year ago. The proposed FY 83 procurement budget will give us another needed increase.

Highlights of the Army's research, development, and acquisition effort that illustrate the direction and importance of our equipment modernization programs follow:

The nucleus of maneuver on the modern battlefield is the tank. While the M60A3 is a good tank that will be in our inventory well into the 1990s, its potential for improvement is limited, and it can be outperformed by two Soviet tanks that have already been fielded. The Army recognizes the adequacy of the M60A3 for many missions, and we plan to continue to modify the older M60A1s to the A3 configuration. The Army's tank of the future is the M1 Abrams. Its militarily significant difficulties have been corrected, and the FY 83 budget will allow more expeditious fielding of this vital weapon system. We also plan to obligate funds to procure light armored vehicles for light divisions in FY 83. These vehicles will fill the need for an armored vehicle that can be moved rapidly and fight effectively in nearly any contingency area.

Experience shows that the tank cannot be used to its full potential unless it is employed with infantry, and for many years the U.S. Army has not had a modern infantry fighting vehicle. That condition changes this year with the Bradley fighting vehicles (BFV), which will be produced in FY 83 at a rate of between 40 and 50 per month.

When our armored and mechanized divisions have both the infantry and cavalry versions of the BFV, the number of tube-launched, optically-tracked, wire-guided (TOW) missile launchers mounted on vehicles will increase from 282 to nearly 800 in each heavy division. These increases provide great advantages on any battlefield where we are opposed by tanks or other armored vehicles.

The potential of the tank is improved in the defense when its vulnerability to opposing tank and antitank weapons is reduced by tactical means and by fighting from prepared (dug-in) positions. The M9 armored combat earthmover, which will enter production in FY 83, was specifically designed to move with armor and dig protective positions.

Tank killers are a vital part of close combat. One of our most formidable tank killers, the Apache attack helicopter, equipped with the Hellfire laser-guided missile system, is entering its second year of production in FY 83. The Apache is the Army's first day-night, all-weather, all-terrain, self-deployable attack helicopter.

The combat effectiveness of the Apache/Hellfire combination will be improved by the Army Helicopter Improvement Program's near term Scout, whose role is reconnaissance, target acquisition, and target designation. It is called an improvement program and "near term" because the procurement strategy involves the modification of existing OH-58A Scout airframes so that a more capable Scout can be fielded quickly and economically. The FY 83 program supports fabrication and contractor testing of five prototype Scout systems. Initial production is scheduled for FY 84.

Our infantry anti-armor capability over the past 15 years has depended largely on three systems: the light antitank weapon (LAW), Dragon, and the TOW antitank missile. Improved Soviet armored vehicles have reduced the relative effectiveness of these systems. Hence, we need to restore the edge to our infantry. Viper, replacing the LAW as the soldier's portable, close-in anti-armor weapon, provides greater reliability, range, and hit probability, and the FY 83 budget will fund its third year of production. The Dragon is currently our mid-range (1,000 meters) antitank weapon. It is no longer being produced, but it will remain in service until we develop a replacement system.

The TOW long-range (3,750 meters) anti-armor system is a prime example of evolutionary development. The basic TOW was developed to counter the armor threat of the 1960s, and the Improved TOW followed to counter the threat of the late 1970s. TOW 2, now approved for production, will match the threat into the late 1980s and will provide a potent anti-armor weapon for the Bradley fighting vehicles, the Cobra attack helicopter, and vehicle mounted and ground launchers. Fiscal year 1983 funds will continue the procurement of new TOW 2 missiles and modification kits for current ground TOW launching platforms.

Antitank mines, which impede and channel enemy armor, will be emplaced more rapidly by the trailer-mounted Ground Emplaced Mine Scattering System (GEMSS); production of this system continues in FY 83.

In the fire support area, our artillery modernization is continuing with both new weapons and munitions. The Multiple Launch Rocket System (MLRS) will provide concentrated firepower at ranges greater than 30 kilometers. In FY 83 we will complete MLRS development and field two MLRS batteries. A new 155-millimeter nuclear projectile is under development. A new enhanced radiation (ER) 8-inch artillery-fired atomic projectile (AFAP), which has significant operational advantages over the presently deployed 8-inch atomic projectile, is currently in production, and a new ER warhead is in production for the Lance missile system.

The area denial artillery munition (ADAM) and remote anti-armor munition (RAAM), both in production, provide a new capability to employ mines against personnel and vehicular targets in enemy controlled areas. Fired from 155-millimeter howitzers, these mines permit the commander to fix objectives, isolate targets, interdict advancing columns, close gaps in minefields, lay point minefields, and reinforce other obstacles.

The Pershing II missile system will provide longer range, shorter reaction time, and greater accuracy than its predecessor, Pershing IA. Pershing II will fill a critical void in the NATO long-range theater nuclear force. Pending the outcome of intermediate-range nuclear forces (INF) negotiations, we will complete our missile test flights and continue the production buy in FY 83.

The Copperhead precision guided munition (PGM) is in production, which continues in FY 83. In the late 1980s our fire support capability will be improved by another PGM called sense and destroy armor (SADARM). The SADARM projectile, which can be fired from an 8-inch howitzer, contains sensing submunitions that are ejected over a target area. After the submunition detects a target, its warhead is fired at the relatively soft top of the target. This technology offers a fire and forget, day/night capability and is relatively immune to weather, battlefield obscurants, and electronic countermeasures. Similar PGMs are being considered for use with the MLRS.

While cannons, rockets, missiles, and munitions constitute the most visible components of the fire support team, the effectiveness of weapons is limited unless targets can be accurately identified and quickly engaged. Our field artillery responsiveness has been greatly improved by the continued fielding of the Tactical Fire Direction System (TACFIRE), an automatic data processing system that integrates various means of target acquisition with meteorological and other data. Testing of the Meteorological Data System (MDS) will be completed by FY 83 funding. This system will assist in adjusting artillery by accounting for changing atmospheric conditions. The battlefield commander needs the surveillance and target acquisition capability we sought in the recently terminated Standoff Target Acquisition System (SOTAS). We continue to seek an affordable way to provide this capability with the Battlefield Data System (BDS). A general officer steering group is reviewing alternatives, and we plan to begin development of a BDS in FY 83.

The role of finding enemy artillery targets falls to the Firefinder counterbattery/countermortar radars that will be fielded this year. We will also continue to procure in FY 83 the ground laser locator designator (GLLD), a key link to laser-guided munitions like Hellfire and Copperhead, and make our first purchase of the fire support team vehicle (FISTV). The FISTV will provide needed protection, mobility, and communications for our forward observers. The FY 83 budget will continue to fund development efforts for the remotely piloted vehicle (RPV), which will be used to locate and laser-designate targets and to facilitate fire adjustment.

For many years, our air defense needs have been well served by I-Hawk, Chaparral, Vulcan, Redeye, and Nike Hercules. Our capability for the future will be significantly bolstered by the addition of four new systems: Stinger, the division air defense (DIVAD) gun, Patriot, and truck-mounted Roland fire units. Stinger, a manportable, hand held air defense weapon, was fielded in Europe in 1981, and an improved version with a more capable seeker is under development. This year's budget will also fund the production of 96 DIVAD guns, which will provide our maneuver elements with a significantly improved forward air defense capability. Patriot is without doubt the best air defense system in the world. In FY 83, 12 Patriot fire units will be funded, and the first Patriot battalion will become operational. Even though the major program was terminated in FY 82, we intend to field one light Roland battalion to support the Rapid Deployment Force.

Short range air defense command and control (SHORAD C^2) is currently being developed to improve the probability of successfully engaging hostile air targets. SHORAD C^2 will replace a manual system, increase our ability to identify aircraft, and ensure the timely and dependable transmittal of engagement data.

The $23 million appropriation in FY 81 to construct phase I (for production of 155-millimeter GB-2 artillery projectiles) of the integrated binary munition production facility (IBMPF) at Pine Bluff Arsenal,

Arkansas was the first step toward modernizing our aged and inadequate deterrent/retaliatory stockpile of chemical munitions. Pending the President's 1982 decision, the FY 83 budget will support needed stockpile modernization by procuring an initial quantity of 155-millimeter binary projectiles. The FY 83 budget also provides for the construction of phase II (for production of Bigeye VX-2 bombs) of the IBMPF.

These efforts are essential if we are to achieve a credible chemical deterrent, a deterrent that is critically needed when viewed in the context of the Soviet Union's formidable and expanding offensive capability to wage chemical warfare and their willingness to use this capability as evidenced in Afghanistan. Furthermore, the very real potential exists, as a result of the linking of lethal mycotoxins to the "yellow rain" attacks in Southeast Asia, that the Soviets are using biological weapons in direct violation of the Biological Weapons Convention and the Geneva Protocol. We strongly prefer verifiable chemical and biological disarmament agreements, but in their absence, we need a credible chemical stockpile to deter others from using chemical and biological weapons against us or our allies.

Although command, control, and communications (C^3) form the central nervous system for a fighting force, we do not have a tactical radio capable of operating satisfactorily in an electronically hostile environment. The Single Channel Ground and Airborne Radio System (SINCGARS) will provide our soldiers with a jam resistant, secure radio system capable of operating in future combat environments. Funding in FY 83 will support the testing of two candidate radios that will result in a production decision early in FY 84. The Joint Tactical Communications Program--also known as tri-services tactical communications (TRI-TAC) --will replace today's analog communications systems, which have manual switchboards, unsecure telephones, and unreliable teletypewriters. In FY 83 we will complete the initial buy of major switches and begin the first year of a 3-year program to buy technical control facilities.

The Tactical Satellite Communications (TACSATCOM) Program takes advantage of our Nation's space technology and will provide a highly reliable means of communication to our tactical and theater nuclear forces. This system and the Position Location and Reporting System/Joint Tactical Information Distribution System hybrid, essential for position location and data distribution in our divisions, continue to be supported in research and development in FY 83. The addition of these capabilities to our C^3 inventory will add significantly to the capabilities of our field forces.

The Army will continue to benefit from the addition of new aviation and ground systems. The FY 83 budget will fund continued procurement of the Black Hawk helicopter, which is being fielded to priority units in Europe. Fiscal year 1983 funding will also accelerate modernization of the Chinook to the CH-47D configuration. Twenty-four aircraft will be modernized in FY 83, and production will accelerate to 60 per year in FY 86, thereby completing the total procurement 4 years early.

With regard to ground mobility, an area critical to the support of continued Army modernization, the FY 83 budget will fund continued procurement of improved 5-ton trucks, new 10-ton heavy expanded mobility tactical trucks (HEMTT), the off-the-shelf commercial utility and cargo vehicles (CUCV), and commercial construction equipment. The M939 series 5-ton vehicle will support the introduction of such major systems as the M1 Abrams tank, Patriot, Pershing II, and TACFIRE. The 10-ton HEMTT will support the MLRS and Patriot, as well as provide unit ammunition and fuel transport services to the corps area. The CUCVs and high mobility multi-purpose wheeled vehicles (HMMWV) will replace four separate overage and less capable vehicle families. The FY 83 budget will enable the Army

to complete the HMMWV vehicle development program, and award its initial production contract. The FY 83 budget will also continue the FY 82 initiative to replace current overaged, worn construction equipment via multi-year contracting.

Nontactical vehicles, formerly known as administrative use vehicles, have had a low priority in recent years, and our fleet today is generally inefficient, unreliable, and expensive to maintain. The FY 83 budget continues our FY 82 start of the needed rehabilitation.

In preparation for the President's proposed 1983 strategic program decisions, the Ballistic Missile Defense (BMD) Program is focusing its research, development, test, and evaluation effort on low altitude defense (LoAD) while continuing research and development efforts on overlay defense. In the LoAD concept, hostile warheads are destroyed by nuclear bursts after they have penetrated the atmosphere. Overlay defense, which involves the interception and non-nuclear destruction of warheads above the atmosphere, is an alternate means of defense for the more distant future. These complimentary concepts provide effective means to protect our silo-based intercontinental ballistic missiles and other strategic targets.

Because we are committed to a flexible and well trained Total Army, it is imperative that force modernization include the Army National Guard and Army Reserve. Three Reserve Component tank battalions will receive M60A3 tanks to replace older models, and as M1 Abrams production increases, more older model tanks can be replaced. The National Guard round-out brigades will receive new equipment at approximately the same time as their parent divisions. The FY 83 budget seeks to improve the capability of Army National Guard combat service support units by funding new trucks and materials handling equipment.

Also important to the Army National Guard and Army Reserve modernization efforts is the continuation of the tactical automatic data processing equipment initiatives begun in FY 82. This equipment will provide a mobile automatic data processing system dedicated to logistics. Fiscal year 1983 funding will also provide the Battery Computer System (BCS) to both Army National Guard and Army Reserve artillery units. The BCS performs ballistic computations and interfaces with artillery fire direction systems.

Although we are necessarily oriented toward procurement in the FY 83 budget request, it is important that we continue research and development investments in those areas that have the potential for the greatest payoff on the battlefield. The FY 83 technology base program will continue efforts in intelligence; surveillance and target acquisition; chemical/biological warfare defense; armor/anti-armor technology; and command, control, and communications. We are also increasing our study of soldier-machine relationships and information processing. Because these studies are included in long-range planning, they will continue to receive long term emphasis, thereby bringing greater stability to the technology base program.

The Army continues to research advanced systems, including the Corps Support Weapon System, the mobile protected gun and a terminally guided warhead for the Multiple Launch Rocket System. Also, significant new initiatives are planned for a lightweight air defense system and laser weapons. Funds are also requested to improve the combat capabilities and reliability of some major systems already fielded: the TOW anti-armor missile, the Chaparral air defense missile, and the Abrams tank.

One final item regarding our equipment modernization efforts concerns the costs needed to keep the new systems operating after they are sent to our units. These costs, commonly referred to as the operation and support tails, will vary according to the number of systems supported, the number of initial spaces, and the usage factors for such items as fuel and repair parts. Based on the best estimates available, the funds requested for the major new and modernized systems are sufficient for the systems being fielded and supported in FY 83.

The new equipment that we are seeking to support the new doctrine that results from our forward-looking strategy will allow our forces to be more mobile on the battlefield, more readily deployable because they will be lighter in weight, and more sophisticated in terms of capability and yet simpler in terms of operability and maintainability. We can overcome Soviet superiority by using advanced technology and by improved training that results from cost-effective simulation systems and aggressive leadership.

Modernizing Facilities:

Facilities supporting Army units in the United States have evolved largely from the massive buildup of temporary facilities during World War II. In Korea they have evolved almost exclusively from the temporary facilities built in the early 1950s, and in Europe from German facilities built prior to World War II.

Facility expenditures in recent years have focused on meeting such national priorities as energy conservation and environmental concerns for our installations in the United States and on accommodating new organizations and new weapon systems worldwide. With the exception of substantial funding to modernize bachelor housing and hospitals, only modest improvements to Army facilities have been possible because of competition from other urgent needs. Our Army-wide backlog of new construction has grown about $4.5 billion in the past year and currently exceeds $21 billion. Funding has not kept pace with needs, and the condition of our facilities is declining steadily. New weapon systems are also changing facilities needs, and our ability to mobilize is degraded as old facilities become unusable.

In Europe, facilities are particularly poor because installations are generally small, old, and scattered and because replacement and modernization as well as maintenance and repair have been underfunded, particularly during and since the Vietnam conflict. Consequently, major construction projects are needed to modernize or replace old, and often obsolete, facilities, especially maintenance shops and utilities systems, and concomitantly, to improve living and working conditions. Over the years, modernization and other needs of our forces in Europe have filled available facilities to capacity so that present and future modernization programs will require construction before they can be fully implemented. Also, a positioning problem has developed because changes in the missions of our European-based units have resulted in garrisons that are far from planned wartime positions.

In response to the need to deal simultaneously with present facility inadequacies, force modernization, and malpositioning, the U.S. Army, Europe has developed the Master Restationing Plan (MRP). As directed by Congress, the Departments of State and Defense have asked the German government to fund the construction of facilities required to complete the restationing, and even though some progress has been made, the negotiations are expected to be complex and lengthy. In the meantime, $26 million is requested in the FY 83 program, which with the facilities approved in the FY 82 program, will permit the stationing of two battalions at Vilseck, one of the MRP locations. Even if the German

government does not fund the plan, these facilities are needed to alleviate crowded conditions, to vacate obsolete facilities, and to support force modernization.

Since many of our facilities were built before or during the 1940s, many major components have failed, and extensive repair or replacement has been required. As the end of the useful life of these components approaches, the incidence of failure increases along with the work necessary to keep facilities in operating condition. The scope of the problem has been known and identified, but funding has not kept pace with needs. The backlog of maintenance and repair (BMAR) has grown each year at an ever increasing rate. Efforts to contain the backlog and preserve the physical plant were made in the late 1970s, but programed funds proved insufficient because of inflation and the increasing amount of repair needed. Facilities engineers were forced to use funds to fix what was broken and had little left to finance sustaining or preventive maintenance. Overseas, the austere standard of maintenance and limited long term investments in new facilities compounded the problem. In FY 83 we have programed another modest sum to restore our physical plant worldwide. Much remains to be done to provide adequate living and working conditions and to prevent facilities from further hindering our ability to function effectively.

Family housing shortfalls are directly felt at installations throughout the world where they are measured in terms of inadequately housed soldiers and families and in terms of soldiers who do not live with their families because housing is not available. Improving its family housing situation has become one of the Army's highest peacetime priorities, but for the past several years, the Family Housing Management Account (FHMA) has been significantly underfunded and frequently subjected to adverse foreign currency fluctuations, inflation, and unprecedented fuel price increases.

The FY 83 FHMA budget allows us to operate and maintain the existing inventory, undertake some new construction, and modestly decrease the deferred maintenance and improvements backlogs. In FY 83 and beyond, additional family housing units are needed; maintenance that has been deferred needs to be accomplished; and a program of remodeling our aging houses and utility systems must be continued.

Mobilizing

It is a war of smokestacks
as well as of men.

--George C. Marshall

To meet contingencies, the Total Army policy and force structure decisions of recent years have increased our dependence on mobilization; yet mobilization resources are severely limited. We are working on the most glaring deficiences, but progress is slow and much remains to be done, especially with regard to communications, transportation, and facilities.

The Industrial Base:

Even though the United States has one of the strongest industrial bases in the world, it can support a major conventional war effort only

with lengthy warning time and considerable fiscal resources. By the sixth month of hostilities, only about 25 percent of the Army's hardware items can be produced at rates equalling mobilization requirements, and it takes two years--and sometimes longer--to meet the sustaining combat consumption rates for some critical items. War reserves, which sustain the Army from the time of mobilization until production and transportation time can meet consumption requirements, are also inadequate for a prolonged conflict.

Recognizing the present capability of the industrial base, a number of initiatives have been undertaken to improve industrial mobilization. We are: reviewing and rewriting policies to facilitate industrial responsiveness; seeking standby legislation for emergency procurement funding (unfunded contract authority) to allow responsive surging of the industrial base; seeking relief under certain circumstances from social and environmental constraints on the defense industry; and improving procedures for identifying, validating, and stabilizing mobilization requirements for ammunition and materiel.

Lacking sufficient on-hand stocks, industrial base responsiveness becomes critical in a prolonged war--in spite of commercial substitutes, initiative, national will, tactics, or money. Machiavelli warned in the early 16th century: "Whoever has not taken proper care to furnish himself with a sufficient supply of provisions and ammunition, bids fair to be vanquished without striking a stroke."

Personnel Mobilization:

The recent change in law to permit the President to mobilize up to 100,000 members of the Selected Reserve without a declaration of national emergency meets the intent of Congress by providing the Services with a foundation upon which to base partial or full mobilization. Even though this authority allows more timely augmentation of the Active Component by the Army National Guard and Army Reserve, it does not provide us with the assets required to execute major military operations in support of the national strategy.

Another statutory change removed the requirement to provide a minimum of 30-days notice to Reserve members alerted for mobilization. These changes, coupled with the Army management initiatives discussed below, permit a much more responsive personnel mobilization posture.

In October 1981, we implemented an Individual Mobilization Augmentee (IMA) Program, in which trained Individual Ready Reserve personnel, who can be mobilized under the 100,000 callup authority, are identified as augmentees for Active Component units and organizations. Another program, the Mobilization Personnel Processing System (MOBPERS), matches pretrained Individual Ready Reservists with wartime requirements, prepares mobilization orders, and prepositions personnel data at mobilization stations. The Standard Installation/Division Personnel System, Wartime (SIDPERS-WT) will provide a standard wartime personnel system for all Army components.

In addition to these efforts, the Vertical Installation Automated Baseline (VIABLE) Program is designed to provide new automatic data processing support to 47 installations and will include surplus capacity that will be immediately available for mobilization requirements. Also, the retiree recall program is on schedule and during FY 82 is providing approximately 100,000 retired regulars with preassignment orders. But despite progress in personnel mobilization programs, the shortage of pretrained manpower needed in a major conflict continues with no easy solution in sight.

The Mobilization Base:

Serious mobilization deficiencies also result from the limited resources available for the mobilization training and facility base. In order to meet our need for trained manpower in the event of a major war, we must be able to accept and train new soldiers as rapidly as possible after mobilization. We have enough trainers and training units to accept 133,000 recruits during the first month following mobilization, but due to equipment shortages, we can accept only 83,000. In the second month, equipment shortages limit our capability to 57,000 and during the third month to 42,000. In addition to severe shortages in major items of training equipment, there are shortages in individual clothing and equipment and in installation facilities. While contingency plans for the conduct of recruit training with equipment substitutions under crowded living conditions have been developed, additional resources are needed to train the numbers of soldiers needed under reasonably effective conditions.

Mobilization facilities require significant improvement to meet expected mobilization demands. The cantonment areas and industrial facilities that remain from World War II and the Korean War are insufficient in number and generally in a poor state of repair. Approximately $22 million is included in the FY 83 budget to develop standard designs for the needed facilities and for site adaptation of these plans. This advanced planning will be a vital first step toward our goal to reduce mobilization construction response time by approximately 90 days.

The Army civil works establishment continues to hone its capabilities to respond to mobilization construction missions through peacetime planning, engineering, construction, and management of major water resources programs. In FY 83 and beyond, we are seeking new ways to support national engineering and construction programs in order to sustain this essential national mobilizaton asset.

The Army National Guard and Reserve:

Mobilization is one of the most significant concerns of the Army National Guard and Army Reserve. Because of reductions in the support elements in the Active Component in recent years, the Total Army relies on the Guard and Reserve to support the Rapid Deployment Force and other contingencies with numerous early deploying forces. The Guard and Reserve participate in many mobilization exercises; they provided nearly 15 percent of the Total Army commitment to REFORGER 81. More Guard and Reserve units will participate in REFORGER 82.

One of the major differences between the Active and Reserve Components is that in order to deploy, the Guard and Reserve must first assemble from diverse areas and occupations. In order to improve this mobilization capability, we have developed a comprehensive Army Mobilization and Operations Planning System (AMOPS). It is intended to facilitate mobilization planning, and will be evaluated and improved during frequent mobilization exercises to include the major biennial mobilization exercise, known as MOBEX.

Deploying

Git thar furstest with the mostest.

--Nathan Bedford Forrest

U.S. strategic mobility forces are currently unable to meet NATO reinforcement objectives or to project credible U.S. forces to areas where our national interests are threatened. Without additional outsize airlift and responsive fast sealift, our ability to respond to global contingencies is dependent upon the readiness of our forward-deployed units, upon the prepositioning of unit equipment and war materiel, and upon timely political decisions.

Even though individuals in our combat forces are ready, many of our units are not ready, largely as a result of equipment shortages. Our prepositioned equipment and war reserve stocks are inadequate for many contingencies, and no one can guarantee that political decisions will be timely, especially when some of the most crucial ones might be made by our adversaries and without our knowledge. Mobility forces, both air and sea, must therefore be increased to improve our power projection capability and to preserve the flexibility needed to respond to any threat to our vital national interests.

The planned conversion of the eight Navy SL-7 container ships to roll on/roll off (RO/RO) configuration is essential. Also, a high priority must be accorded for additional, responsive RO/RO ships to provide even greater flexibility for the fast sealift deployment of Army forces, especially our armored and mechanized infantry units. A high priority must also be given to research and development programs for surface effect ships, which will project forces rapidly and complement airlifted forces in the future.

We also emphasize the need for improvements in the Air Force's strategic airlift program. Army forces need cargo aircraft that can move outsize cargo rapidly, both within a theater of operations and between theaters.

We continue to make progress in the prepositioning of materiel configured to unit sets (POMCUS), but critical shortages exist in the four division sets being filled. The NATO Long Term Defense Program calls for two additional division sets at sites in Belgium and the Netherlands, and funds are requested in FY 83 to provide initial stockage of repair parts, stock fund items, civilian pay, and operations and maintenance costs for these two sets. Even with the prospect of improved strategic airlift and sealift, this additional POMCUS is still a key part of our strategic mobility improvement program.

Our military construction program for the Persian Gulf region calls for the development of two intermediate staging sites, which will in the near term reduce strategic mobility requirements, and in the longer term improve the infrastructure for the Rapid Deployment Joint Task Force. The first of these facilities, at Ras Banas, Egypt, will provide austere cantonment areas for Army and Air Force personnel as well as port, airfield, hospital, storage, and maintenance facilities. The construction is programed from FY 82 through FY 85 at a cost of $211.2 million for the Army share of facilities. Of this total, $53 million is requested in FY 83. The location of the second site has not been determined. No combat force can perform its mission if it is not at the right place at the right time with the right materiel.

Sustaining

Every unit that is not supported is
a defeated unit.

--Maurice de Saxe

Army combat power is dependent on ready combat forces and the flexible network of support units and war reserve materiel needed to keep them fighting. As mentioned above, many of our units are not ready, and our war reserves are inadequate for many contingencies. Our support network is deficient because many of the Army National Guard and Army Reserve units upon which it depends are neither manned nor equipped sufficiently to give timely support. In view of these shortcomings, we have looked for better management tools to alleviate the problems that result from limited resources.

We have long recognized the need for a meaningful way to assess our logistics capability and that void has been filled by the Army Logistics Assessment (ALA), which enables us to evaluate our ability to support combat needs in 10-day periods under single or multiple scenarios. By looking at individual elements of support, we can identify "war stoppers" and take necessary corrective action. This major advance in planning technique is proving invaluable in our efforts to overcome deficiencies in our sustaining capabilities. Areas where we are applying ALA findings are discussed in the following paragraphs.

Inadequate combat service support force structure dictates a heavy reliance on host nation support (HNS) and on logistical support from the Army National Guard and Army Reserve. Steady progress is being achieved in the area of HNS. Germany has agreed to provide HNS from both the military and civil sectors; the United Kingdom, Belgium, the Netherlands, and Luxembourg have reviewed other U.S. HNS needs. Korea provides HNS through the Combined Defense Improvement Projects (CDIP) Program, and efforts are underway to establish HNS discussions with selected Southwest Asian countries to support the Rapid Deployment Force.

Our ability to distribute bulk fuels and ammunition to forces in Europe and to the Rapid Deployment Force is inhibited by fuel and ammunition handling and distribution shortages. Moreover, there are shortages in bulk petroleum war reserves and deficiencies in our capability to deliver large volumes of petroleum over-the-shore in a bare base environment. Funds to improve petroleum units, bulk petroleum stocks, and over-the-shore delivery systems are requested in the FY 83 budget. Some key equipment for petroleum units will be prepositioned in Europe, and the United States Army, Europe is improving its petroleum general support base. In FY 82 two tanker discharge systems are being procured to provide over-the-shore bulk petroleum capability. The FY 83 budget request also provides for equipping units planned for activation and for improving ammunition handling and distribution capabilities.

While some progress has been made in improving the posture of war reserve stocks, there are shortages in prepositioned ammunition. Because the industrial base is incapable of significant contribution in the early phases of an emergency, it cannot be considered a substitute for our war reserves. Therefore, the FY 83 budget provides for additional days of supply of major and secondary items.

The prepositioning of ammunition in Europe is limited by storage space, insufficient NATO infrastructure funding for construction, and the cost of modern munitions. The FY 83 budget request provides for continuing the construction of a limited number of storage facilities to accommodate basic load ammunition for our own forward-deployed units, for continued reduction of ammunition shortages, for reduction of the backlog of unserviceable ammunition needing restoration, and for renovation of toxic munitions.

In addition to topics above, ALA has studied the problems contributing to depot maintenance backlogs and the vulnerabilities in the resupply system during potential combat in Europe. The FY 83 budget will enable us to keep up with depot maintenance, but backlogs, eliminated in FY 82, will recur during FY 84 due to resource limitations. To provide a safety level in the event supply is interrupted during combat, we will continue in FY 83 to increase the forward positioning of war reserves in Europe for repair parts, barrier materials, and major end items.

The FY 83 budget request also seeks funds to continue efforts begun in FY 82 to achieve a more effective program for care of supplies in storage (COSIS) in continental United States (CONUS) depots. This is only one of many actions being taken to improve materiel readiness worldwide. Our air line of communication (ALOC) concept, which was initiated in 1977 and flies urgently needed repair parts to our forces in Europe, Korea, Alaska, and Hawaii, has been extremely successful. The FY 83 budget provides for its continuation.

We have begun to standardize combat prescribed load lists (PLLs), which determine the repair parts maintained in combat units, and authorized stockage lists (ASLs), which determine the repair parts maintained in support units. Standardization of the lists according to expected wartime rates rather than peacetime demand will ensure adequate stockage of parts to replace those lost through combat usage and combat damage. U.S. Army, Europe units have the highest priority for receiving combat PLLs and ASLs.

Evaluation of the logistic support requirements for the entire Rapid Deployment Joint Task Force (RDJTF) has shown a need for improvement in our logistics-over-the-shore (LOTS) capability. Force structure for a second amphibious watercraft (LACV-30, our air cushioned landing vehicle) company has been planned for FY 84. Congress appropriated $27.3 million in FY 82 for 4 of the 12 LACV-30s required for the second company, and funds for the remaining 8 LACV-30s are requested in the FY 83 budget. Funds are not programed for renovation of the inadequate, overage conventional watercraft fleet until FYs 85-87.

Procurement of a limited amount of equipment for the production and treatment of water, required for the RDJTF and begun in FYs 81-82, continues in FY 83. The first water support equipment available is being used during field exercises, to establish a training program at the National Training Center, and for distribution to selected units and to RDJTF contingency stocks. Funding for four tactical water distribution systems, six well drilling rigs, and four water purification units is planned for FYs 83 and 84. Two 600 gallon per hour water purification units, four 20,000 gallon collapsible storage tanks, and two mobile water chillers were successfully used in Egypt and Somalia during Exercise Bright Star 82.

The proper equipping of Army units depends on both the procurement of the right hardware and its distribution to the right units. To ensure proper distribution, we have developed a worldwide management tool, the Total Army Equipment Distribution Program (TAEDP), which helps to achieve the optimum distribution of equipment to our fighting units. This management tool also supports our program to improve distribution to the Army National Guard and Army Reserve.

The Army has developed a Selected Item Management System - Expanded (SIMS-X), to assist with the management of critical repairables stored at intermediate and retail supply levels. This program will result in improved procurement and depot workload forecasting and redistribution of assets, thus contributing toward the best use of available resources.

In FY 83 the Army will continue to standardize and streamline automated logistics systems that support supply, maintenance, transportation, and ammunition functions during wartime. Additionally, we will continue to improve automatic data processing equipment so that Army National Guard and Army Reserve systems will be compatible with systems in active units. Improvements will also be made in our automated systems supporting the CONUS logistics base to provide for faster and more responsive logistic support.

Our reserve production base, while capable of providing large quantities of older equipment and ammunition, can produce very few of our new items on a large scale or in a timely manner. However, the time needed to either reactivate or convert these facilities is far less than that required for new construction. Hence, preservation of our reserve industrial capacity is essential to the long term sustainability of the force.

The Special Defense Acquisition Fund (SDAF), whose purpose is to procure high demand, long lead time, short supply items for foreign customers, was recently approved by the 97th Congress. This legislation will allow contracts to be awarded for specific items based on anticipated foreign customer demands. It will thus lessen degradation to Army readiness caused by withdrawals and diversions of equipment to fill unprogramed foreign requests.

The administration's conventional arms transfer policy has reaffirmed the need for advance planning of foreign requirements. This policy enables us to advise and assist foreign countries in integrating their long-range modernization needs into U.S. Army procurement plans.

The FY 83 budget will allow us to resolve many of our logistic deficiencies. Progress will be slow and costly but also necessary if we are to deter and to be prepared to fight and win a major war. To assist in remedying near term deficiencies, we continue to look for innovative and cost-effective solutions. Sustaining a great nation in war requires preparation and commitment not only from military logisticians but also from the people, Congress, and industry.

Esteeming

There must be some other stimulus,
besides love for their country, to
make citizens fond of the service.

--George Washington

In this age of high technology, complex machines, and limited resources, we must not neglect the welfare of soldiers, their families, and the civilian workforce and the esteem that is due them. As a part of the Quality of Life Program, we are attempting to improve many facets of our living and working environment.

Quality of life issues have a direct impact on combat readiness and on the commitment of soldiers to an Army career, and they also send a message to our citizens and allies about the Nation's respect for and appreciation of those citizens who serve to defend and preserve our way of life. The Army's strength has always been its people--their readiness, commitment to each other, and dedication to the Army and the Nation in war and peace.

Professional military life is far different from most callings: soldiers are assigned worldwide, routinely experience family separation, endure generally stressful work, engage in arduous training under adverse circumstances of weather and terrain, can be deployed on short notice to potentially hostile situations pursuant to the support of national programs and policies, and are much closer than most citizens to the specter of war. Yet their community living and working conditions are too often inadequate. In addition to appropriate compensation, a soldier's quality of life is determined by many other considerations: housing, either barracks or family quarters; maintenance standards; educational opportunities; community services; family and religious needs; morale, welfare, and recreation services; and health care standards.

As stated above, the FY 83 budget request for family housing provides for essential annual recurring operation and maintenance costs and for correction of some of the backlogs of maintenance and improvements, particularly in Europe. But it will not do enough to correct these backlogs elsewhere. Furthermore, it will provide just a fraction of the housing construction needs now estimated at $1.7 billion.

Community morale, welfare, and recreation services are maintained close to previous years' levels, which allows little improvement. Adequate and safe child care facilities and other essential community and family support services are needed now for soldiers and their families. Yet, construction of critically needed facilities continues to be deferred, and the FY 83 budget will correct few of the deficiencies. The provision of appropriated funds at fully authorized levels for morale, recreation, and welfare activities is also necessary so that nonappropriated funds can be used for projects where only nonappropriated funds are authorized.

The Army family is an integral part of the Quality of Life Program. Our initiatives to assist families include a family liaison office on the Army Staff to contribute to the formulation of policies and programs affecting families and a family life communications line to enable family members to voice opinions to and obtain information from the Army Staff.

In Europe, overcrowded barracks and inadequate facilities are a concern for three reasons: they reduce readiness; they hamper retention; and they send the wrong signal to allies and potential enemies about our capabilities and priorities. Some conditions that resulted in part from chronic underfunding during and after the Vietnam war are being corrected. During FY 82 $470 million is available for maintenance and repair in Europe, and $531 million is requested in FY 83. We also plan to increase funding significantly in Europe for new construction, for family housing improvements, and for maintenance and repair over the next 5 years.

Congressional support for dining facilities improvement was evident during FYs 75-77 when nearly 200 dining facilities were modernized. However, approximately 220 dining facilities still need to be modernized. At the present rate, about 3 per year since FY 77, the program will take over 70 years to complete. Full funding of the requested $183 million for the dining facilities renovation will complete this program by 1987.

Because soldiers have strong interests in and proclivities toward physical fitness, we are requesting the construction of physical fitness centers and gymnasiums for scheduled intramural and recreational activities. These facilities help to maintain physical readiness while providing relaxation from the rigors and routines of military duties.

Poor facilities have an extremely demoralizing effect on service members and encourage the perception that the living standards provided to our soldiers are much lower than the standards of performance we expect from them. Commissaries provide a good example of the effect that poor facilities have on morale. Congress has directed that commissaries be constructed with surcharge funds, but these funds are insufficient to meet construction needs. Hence, most soldiers and their families observe and endure overcrowded, inefficient, and inadequate commissaries each time they shop in their military communities. An increase in the surcharge would further reduce the benefits of being a soldier. Better living and working conditions not only improve the efficiency of mission performance but also improve the perception of service life in general. Our living and working conditions are also an expression of the Nation's commitment to its fighting forces.

Other issues relating to soldier welfare include pay and compensation, health care, alcohol and drug abuse prevention and control, and educational assistance. Future annual military pay adjustments should be based upon a separate appropriate military pay adjustment mechanism--a feature which does not now exist. This will require the adoption of an index by Congress, based in part upon joint service and Department of Defense recommendations.

Health care for soldiers and their families has improved in recent years, but deficiencies remain. In FY 83, active duty physician strength will increase, continuing the positive trend of recent years. The appropriate mix of physician specialties, however, will not be restored in the near future.

Each year, our Alcohol and Drug Abuse Prevention and Control Program returns to duty approximately 19,000 soldiers, the equivalent of a reinforced division. Approximately 3,000 rehabilitation failures are separated annually. The success of this program is gratifying, but the issue is still cause for concern.

The competency of the Army depends upon good people, good training, good equipment, and a good environment. These depend in part on the resources provided by Congress and the Nation and in part on our own initiatives. Arduous duty in remote areas and separation from family and home inspired the tradition that the Army takes care of its own. That tradition continues today, but to care properly for our soldiers, civilians, and their families, we need the support of Congress and the Nation. Quality of life issues affect our ability to recruit, retain, train, and maintain. They are vital to the competency of the Army.

RESOLUTION

The Army is resolved to be ready and responsive when called upon to support, sustain, or defend the national interests. The fiscal year 1983 budget request, outlined in the annex to this report and referenced throughout the report, will provide many of the improvements needed to create an Army capable of fulfilling its diverse worldwide missions, but it will not fill all the serious gaps that concern us.

BUDGET ADEQUACY
FISCAL YEAR 1983

The FY 83 Army budget request:

DOES		DOES NOT
Project an active strength of approximately 784,000. Increase Reserve Components. Increase civilian strength.	MANNING	Increase active end strength above that of FY 82. Fulfill IRR shortfalls. Meet civilian endstrength needs.
Provide new systems and simulators. Support National Training Center.	TRAINING	Significantly increase training above FY 82 levels. Meet training base operations support needs.
Improve RDF structure. Provide procurement real growth. Continue production of many needed systems.	MODERNIZING	Provide needed support units. Satisfy existing equipment shortages.
Continue to fill POMCUS. Continue procurement of war reserve stocks. Reduce M+90 trained manpower shortages.	MOBILIZING, DEPLOYING, and SUSTAINING	Meet war reserve needs. Meet construction and equipment needs. Eliminate M+90 manpower shortages.
Reduce backlog of maintenance and repair in Europe. Modestly improve the quality of the Total Army.	ESTEEMING	Reduce backlog of maintenance and repair other than in Europe. Correct housing shortages.

In order to have the kind of force the times demand, we recognize that substantial expenditures are needed to modernize and equip not only the Army, but also our sister services. In managing limited resources, we understand the need for a lean approach that requires cost consciousness and cost discipline. We therefore also resolve to manage the Nation's resources thoughtfully, efficiently, and economically. This is our obligation to the Congress and the American people.

The armies of great nations have often established their reputations by overcoming numerically superior forces. Maurice de Saxe, marshal of France during the internecine European wars of the eighteenth century, observed, "It is not the big armies that win battles; it is the good ones." With the combined resources, efforts, and commitment of the Nation, we will be a good Army--a Total Army--an Army befitting a great nation.

ANNEX A

BUDGET OVERVIEW

The total obligational authority (TOA) for the fiscal year (FY) 1983 budget of $60.7 billion represents real growth of about 10.4 percent. The TOA includes $1.1 billion for the Family Housing, Army appropriation, but in FY 82 and earlier years, these funds were not included in the Army's TOA but were reported as a Department of Defense budget item. When the $1.1 billion is removed from the FY 83 TOA to provide a consistent basis for comparison, real growth of 8.5 percent results.

The $60.7 billion budget request is shown in Table 1 on the next page. The defense subcommittees of the Senate and House appropriation committees will consider $59.5 billion of the request, and the military construction subcommittees will consider $1.2 billion.

The FY 82 TOA totals do not include the FY 82 pay supplemental. The FY 83 TOA totals, however, include the annualization of the FY 82 pay raises, but do not include the FY 83 pay raises, which are held in Department of Defense contingency funds. Totals in the following tables might not be the sum of subtotals or individual entries because of rounding.

TABLE 1

ARMY BUDGET
($ In Thousands)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Military Personnel	14,157,244	14,856,127	17,306,400
Military Personnel, Army	12,116,785	12,555,227	14,401,100
National Guard Personnel, Army	1,174,938	1,329,800	1,680,500
Reserve Personnel, Army	865,521	973,100	1,224,800
Operation and Maintenance	14,419,439	17,060,342	18,638,775
Operation & Maintenance, Army	12,949,477	15,311,097	16,827,600
Operation & Maintenance, Army National Guard	948,465	1,089,450	1,123,900
Operation & Maintenance, Army Reserve	520,707	658,950	686,400
National Board for the Promotion of Rifle Practice	790	845	875
Family Housing	782,603	913,799	1,061,600
Procurement	10,521,748	14,171,971	17,629,674
Aircraft Procurement, Army	1,302,600	1,936,100	2,745,917
Missiles Procurement, Army	1,544,900	2,155,200	2,846,600
Weapons & Tracked Combat Vehicles Procurement, Army	3,374,200	4,002,300	5,030,685
Ammunition Procurement, Army	1,558,700	2,302,500	2,638,984
Other Procurement, Army	2,841,348	3,725,871	4,567,491
National Guard Equipment, Army	0	50,000	0
Research, Development, Test and Evaluation	3,124,274	3,609,535	4,484,000
Military Construction	986,903	1,110,062	1,194,100
Military Construction, Army	901,434	977,701	1,100,200
Military Construction, Army National Guard	42,269	67,658	51,100
Military Construction, Army Reserve	43,200	64,703	42,800
Stock Fund	34,000	176,300	222,138
Stock Fund War Reserve	34,000	176,300	221,138
Army Conventional Ammunition Stock Fund	0	0	1,000
TOTAL	44,026,211	51,898,136	60,736,687

MILITARY PERSONNEL -- $17.3 BILLION

The military personnel accounts provide for pay, subsistence, housing, other allowances, and individual changes in duty stations for soldiers in the Active and Reserve Components.

Military Personnel, Army:

The FY 83 Military Personnel, Army (MPA) appropriation request is $14,401 million. Table 2 shows the Active Army military strengths and areas funded by the appropriation.

TABLE 2

Active Army Manpower Program
(End Strength)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Officers	101,477	102,621	104,707
Enlisted	675,083	677,362	674,676
Cadets	4,482	4,417	4,417
TOTAL	781,042	784,400	783,800

Military Personnel, Army
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Pay and Allowances			
Officers	2,787	2,867	3,292
Enlisted	7,690	7,805	8,958
Cadets	27	29	31
Subsistance - Enlisted	774	798	878
Permanent Change of Station Travel	834	1,049	1,237
Other Military Personnel Costs	5	5	5
TOTAL DIRECT PROGRAM	12,117	12,553	14,401

Increases in the FY 83 MPA budget request result from strength increases, improved bonus programs, introduction of the meal-ready-to-eat (MRE) ration, and increased restationing entitlements to members and dependents.

National Guard Personnel, Army:

The FY 83 National Guard Personnel, Army (NGPA) budget request of $1,681 million provides pay and related expenses for Army National Guard personnel. Table 3 shows Army National Guard personnel strengths and the NGPA budget.

TABLE 3

US Army National Guard
(End Strength)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Pay Group A	348,865	353,002	369,147
Pay Group F	17,379	19,600	20,000
Pay Group P	12,713	13,975	13,453
Full Time Active Duty	10,052	11,439	14,419
TOTAL	389,009	398,016	417,019

National Guard Personnel, Army
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Pay Group A/P	749	789	952
Pay Group F	166	175	206
School Training	43	50	68
Special Training	26	44	75
Administration/Support	191	272	380
TOTAL PROGRAM	1,175	1,330	1,681

The NGPA budget for FY 83 supports an end strength of 417,019. The number of Army National Guardsmen on full-time active duty increases, and modest growth is achieved in command post exercise training. The Guam National Guard is fully supported in FY 83. New initiatives in school training are primarily for increased aviation training and noncommissioned officer training. The incentives program requirement, which provides enlistment and reenlistment bonuses, is $52 million.

Reserve Personnel, Army:

The FY 83 Reserve Personnel, Army (RPA) budget request is $1,224.8 million. This appropriation provides pay and related expenses for USAR personnel and for members of the Reserve Officers Training Corps (ROTC). This request also funds an estimated FY 83 end strength of 8,251 full-time active duty personnel to assist in organizing, administering, recruiting, and training the Army Reserve. A summary of budgeted end strength and entitlement category in the RPA submission is shown in Table 4.

TABLE 4

Reserve Personnel, Army
(End Strength)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Paid Drill Strength	220,122	237,000	251,680
Active Duty Strength	5,092	6,285	8,251
Individual Mobilization Augmentees (IMA)	*	8,564	8,600
TOTAL	225,214	251,849	268,531

*IMA not included in FY 81.

Reserve Personnel, Army
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Pay Group A	459.4	512.9	614.1
Pay Group F	101.1	130.1	159.6
Pay Group P	1.7	2.0	2.7
Pay Group D	10.0	11.8	13.7
School Training	28.8	26.6	30.8
Special Training	35.3	32.2	39.7
Mobilization Training (IRR)	40.2	33.2	51.4
Administration/Support	125.2	150.3	224.7
ROTC	49.7	59.5	71.9
Health Professional Scholarship Program	14.1	14.5	16.2
TOTAL PROGRAM	865.5	973.1	1,224.8

The request provides for increases in paid drill strength and additional full-time manning of Army Reserve units. The request also includes programs to increase the strength and readiness of the Individual Ready Reserve (IRR) and increased ROTC enrollment.

OPERATION AND MAINTENANCE -- $19.7 BILLION

Approximately one-third of the Army budget is allocated to operation and maintenance, which provides for all operational activities that maintain the near term readiness of our units; that support unit and individual training requirements; that support recruiting, examining, and processing of the volunteer force; that operate the logistical maintenance base; and that operate the Army's supply system. Operation and maintenance funds also support the maintenance of facilities, pay the salaries of the civilian workforce, and contribute toward providing an adequate living and working environment.

Operation and Maintenance, Army:

The distribution of operation and maintenance, Army (OMA) by program is shown in Table 5.

TABLE 5

	Budget Program ($ in Thousands)		
	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
2 - General Purpose Forces	4,158,317	5,470,676	6,089,145
3 - Other Activities	49,787	65,703	68,018
3 - Intelligence	128,796	150,681	176,139
3 - Communications	542,550	629,603	672,711
7 - Central Supply	2,793,944	3,043,537	3,291,916
7 - Maintenance	1,376,703	1,497,909	1,720,423
8 - Training	1,570,988	1,875,794	1,927,770
8 - Medical	1,000,150	1,049,424	1,145,369
8 - Other	410,548	485,023	565,069
9 - Administration	807,983	926,663	1,040,704
10- Other Nations Support	109,711	116,084	130,336
TOTAL PROGRAM	12,949,477	15,311,097	16,827,600

The FY 83 request of $16.8 billion improves near term readiness and contributes to the capability to expand the force through mobilization. The FY 83 total includes $1.0 billion of cost growth and $.5 billion of program growth.

Operation and Maintenance, Army National Guard:

The funding categories of the FY 83 operation and maintenance, Army National Guard (OMARNG) appropriation are shown in Table 6. They support the projected National Guard end strengths depicted in Table 3. This request also supports 22,352 civilian employees.

TABLE 6

Operation and Maintenance, ARNG
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Training/Operations	167	139	136
Depot Maintenance	50	52	56
Logistical Support	602	749	756
Medical Support	6	8	8
Base Operations	60	72	89
Recruiting	10	12	13
Management Support	53	58	66
TOTAL PROGRAM	948	1,090	1,124

Operation and Maintenance, Army Reserve:

The FY 83 operation and maintenance, Army Reserve (OMAR) appropriation request provides operating support for the projected Army Reserve strength shown in Table 4 and resources to improve the mobilization and combat readiness of early deploying Army Reserve units. A summary by major category of the OMAR submission is shown in Table 7.

TABLE 7

Operation and Maintenance, Army Reserve
($ in Millions)

	FY 81 -ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Training/Organization of Mission Forces	296.3	416.6	423.6
Depot Maintenance	5.7	8.5	7.7
Communications	10.4	10.7	11.5
Base Operations	148.7	151.9	161.8
Recruiting	32.7	40.0	44.6
Management Support	26.8	31.3	37.2
TOTAL PROGRAM	520.7	659.0	686.4

FAMILY HOUSING -- $1,062 MILLION

The Army Family Housing Program is shown in Table 8.

TABLE 8

Army Family Housing
($ in Thousands)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Construction	82,133	92,486	186,275
Debt Payment	8,384	6,305	4,650
Operation & Maintenance	640,119	747,720	791,205
Applied to Maintenance Backlog	(72,400)	(114,600)	(71,600)
Leasing	51,967	67,288	79,470
TOTAL	782,603	913,799	1,061,600

The FY 83 family housing management account (FHMA) budget provides funds for the annual operation and maintenance costs, as well as an increased emphasis on new work. The family housing budget also provides for the construction of 572 new units and lease authorization for 19,240 units.

INVESTMENT -- $23.7 BILLION

Approximately 39 percent of the FY 83 budget is requested for investment programs: procurement; research, development, test and evaluation; and military construction.

Procurement

The FY 83 procurement appropriation requests are shown in Table 9. They seek to balance procurement for near term force readiness with long term modernization needs.

TABLE 9

Procurement Overview
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Aircraft Procurement, Army	1,202.6	1,936.1	2,745.9
Missile Procurement, Army	1,544.9	2,155.2	2,846.6
Procurement of Weapons & Tracked Combat Vehicles, Army	3,374.2	4,002.3	5,030.7
Procurement of Ammunition, Army	1,558.7	2,302.5	2,639.0
Other Procurement, Army	2,841.3	3,725.9	4,567.5
National Guard Equipment, Army	0	50.0	0
TOTAL	10,521.7	14,172.0	17,829.7

Aircraft Procurement, Army:

This request will provide funds to procure UH-60A Black Hawk and AH-64 Apache helicopters, spares, and related long lead time engines and avionics equipment. It will also fund the modernization of CH-47D Chinook medium lift helicopters.

Missile Procurement, Army:

This account includes funds to procure Patriot missiles, Stinger, Pershing II, the Multiple Launch Rocket System, and associated support equipment. The request also includes funds for modification of TOW, Hawk, and Chaparral.

Funds are also included to procure air defense targets, to provide missile system support items, to improve the production base, and to obtain spares and repair parts for procurement and modification programs.

Procurement of Weapons and Tracked Combat Vehicles, Army:

This account funds continued procurement of the Abrams tank, the Bradley fighting vehicle (BFV), and their supporting systems. Procurement of conduct of fire trainers and driver maintenance trainers for the Abrams and BFV is also continued. Modification programs include the M113 armored personnel carrier family of vehicles and the M110 8-inch self-propelled howitzer. FY 83 funds also procure the squad automatic weapon and spares and repair parts to support new systems and fielded equipment.

Procurement of Ammunition, Army:

This account includes two major programs: ammunition hardware and production base support.

Funds for ammunition hardware provide for 8-inch and 155-millimeter improved conventional munitions; laser-guided 155-millimeter Copperhead projectiles; 155-millimeter area denial artillery munitions; and remote anti-armor mine system projectiles. Funding is also included for training ammunition and for initial procurement of components for the binary chemical round.

Production base support funds provide for modernization of existing World War II facilities and for expansion of the production base required to provide production capability for new ammunition items.

Other Procurement, Army:

Other Procurement, Army (OPA) funds: tactical and support vehicles; communications and electronics; and other support equipment.

Funds for tactical and support vehicles provide for the replacement of peacetime losses; fill the most critical shortages in troop units and war reserve stocks; continue modernizing the combat arms truck fleet; and continue the Army's vehicle commercialization program.

The communications-electronic equipment request supports command, control, and communications requirements of tactical and strategic forces and improves communications security. Electronic warfare equipment for tactical forces is also included.

The other support equipment category procures a variety of construction items, material-handling equipment, generators, and other items that increase our battlefield support capability. It also provides replacement items for peacetime losses in the current support equipment inventory.

National Guard Equipment, Army:

This account was established at the direction of Congress to purchase equipment for the Army National Guard.

Research, Development, Test and Evaluation

The major program areas of the Army FY 83 research, development, test and evaluation (RDTE) appropriation are shown in Table 10.

TABLE 10

Research, Development, Test and Evaluation, Army
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Technology Base	509.1	586.7	699.7
Advanced Technology Development	159.4	210.7	314.5
Strategic Programs	266.6	462.1	919.0
Tactical Programs	1,568.8	1,573.0	1,679.0
Intelligence and Communication	42.4	47.2	73.1
Defense-wide Mission Support	578.0	730.0	798.8
TOTAL PROGRAM	3,124.3	3,609.5	4,484.0

The growth in the technology base provides for keeping pace with expanding technology, allows new weapons options, and attempts to preclude technological surprise. Funds for the Army's only strategic weapon development program, Ballistic Missile Defense, are increased. Major modernization efforts of the past few years, such as the advanced attack helicopter, Patriot, Hellfire, and the division air defense gun, are in the final stages of development and will soon be available for delivery to units.

Military Construction

This portion of the budget includes funds for construction to support operations and training, tactical and support maintenance, hospitals, other medical requirements, troop housing, and military community needs. Funds are also included for the planning and design of future programs, minor construction projects, energy conservation, and pollution abatement.

Military Construction, Army:

The FY 83 military construction, Army (MCA) appropriation request is shown in Table 11.

TABLE 11

Military Construction, Army
($ In Millions)

Facility Category 1/	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Operations & Training	71.1	104.5	190.5
Maintenance & Production	190.7	161.8	257.5
Research & Development	14.6	27.8	32.0
Supply & Administration	56.7	37.9	8.5
Hospital & Medical	182.8	111.7	54.9
Troop Housing/Community Support	100.6	209.4	270.7
Utilities/Land Improvement	152.9	121.1	107.9
Real Estate	0	28.0	0
General Authorization	132.0	175.5	178.2
TOTAL	901.4	977.7	1,100.2

1/ Known Minor Specified Location Construction Projects in category totals.

This request contains $889.2 million for major construction, $62.8 million for minor and exigent construction, $145.2 million for design and planning, and $3 million for access roads and other support. Approximately 39 percent is for construction overseas, primarily in Germany, Korea, and to support the Rapid Deployment Force; 43 percent for construction in the United States; and the remaining 18 percent is for general authorization for design, planning, exigent minor construction, access roads, and construction for classified locations.

Military Construction, Army National Guard:

The FY 83 request for military construction, Army National Guard (MCARNG) provides for 43 major projects. Included in the major projects are 20 armories, 4 aviation facilities, 8 training facilities, 8 vehicle maintenance facilities, 2 logistics facilities, and 1 motor vehicle storage building. Table 12 displays the MCARNG appropriation by major category.

TABLE 12

Military Construction, Army National Guard
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Armory	12	29	16
Non-armory	21	32	17
Minor Construction	7	4	15
Planning and Design	2	3	3
TOTAL	42	68	51

Military Construction, Army Reserve:

The FY 83 military construction, Army Reserve (MCAR) request of $42.8 million will provide for the major construction, minor construction, and the planning and design of Army Reserve facilities. The USAR construction backlog remains high at $848 million. Table 13 displays the MCAR appropriation by major category.

TABLE 13

Military Construction, Army Reserve
($ in Millions)

	FY 81 ACTUAL	FY 82 ESTIMATE	FY 83 REQUEST
Major Construction	38.7	54.9	28.5
Minor Construction	3.4	3.8	5.7
Planning and Design	1.1	6.0	8.6
TOTAL	43.2	64.7	42.8

STOCK FUND -- $222 MILLION

Stock fund war reserves are procured to provide support in the event of a conflict. They are combat critical items needed to maintain major items of equipment and to support the individual soldier from the outbreak of hostilities until the wartime supply system is operational.

[Whereupon, at 12:26 p.m., the committee was adjourned, subject to call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, FEBRUARY 11, 1982

U.S. SENATE,
ARMED SERVICES COMMITTEE,
Washington, D.C.

AIR FORCE PROGRAMS

The committee met in open session pursuant to notice, at 10:02 a.m., in room 212, Russell Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Goldwater, Warner, Humphrey, Quayle, Denton, Cannon, Byrd, Nunn, Exon, and Levin.

Staff present: Rhett B. Dawson, staff director and chief counsel; Francis J. Sullivan, minority staff director; Paul C. Besozzi, minority counsel; Christine E. Cowart, chief clerk; Brenda K. Hudson, assistant chief clerk; Michael B. Donley, Robert S. Dotson, Frank J. Gaffney, George K. Johnson, Jr., David S. Lyles, José E. Martinez, Anthony J. Principi, Patrick L. Renehan, Carl M. Smith, James C. Smith, Kathleen Troia, Richard D. Finn, professional staff members; Ralph O. White, Jr., research assistant; Kimberly A. Manning, staff assistant.

Also present: Dennis P. Sharon, assistant to Senator Goldwater; Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Don Imgram, assistant to Senator Quayle; Paul Schreiber, assistant to Senator Denton; Faisal Keblawi, assistant to Senator Thurmond; Robert Nichols, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Arnold Punaro, assistant to Senator Nunn; Greg Pallas, assistant to Senator Exon, and Peter Lennon, assistant to Senator Levin.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The committee will come to order.

The committee meets this morning to receive testimony on the fiscal year 1983 Air Force budget. We are pleased to have with us this morning Hon. Verne Orr, Secretary of the Air Force, and Gen. Lew Allen, Air Force Chief of Staff.

In its organization and mission, the Air Force brings a broad perspective to our understanding of national security requirements. With major responsibility in areas of strategic warfare, tactical air-

craft, airlift, and space systems, the Air Force budget reflects a full spectrum of defense issues.

Because this committee is organized along similar mission lines, we are following these issues in some detail.

Our concerns in the strategic area remain focused on the outstanding basing issues surrounding the MX, the evolving composition of the B-52 bomber force, the need for tight cost controls on the B-1 program, and emerging technologies.

Our interest in tactical aircraft programs is focused on what we hope can be more efficient rates of production. I believe there is a universal view that the area of aircraft production has perhaps the greatest potential for economies of scale if provided adequate planning, investment, and stability.

In airlift, the committee retains its interest in reducing the serious shortfall in this area and modernizing the tanker inventory. We will review closely the proposed procurement of C-5B and KC-10 aircraft.

In all these areas, we will be sensitive to rising costs where they occur. The committee recently received a letter from Secretary Orr, dated February 8, which identified the Maverick missile, F-15, F-16, AIM-7M, A-10, and defense satellite communications system as programs which have experienced significant cost growth. Each of these systems is an individual case, and I would invite the Secretary to make some appropriate comment should he wish to do so.

Mr. Secretary, we have before us your complete statement and the statement of General Allen. Those statements will be included in their entirety in the record. If you wish, you may summarize those statements. In any case, we invite you to proceed as you see fit. We will first hear from you, and then we will hear from General Allen before we go to the members of the committee for questions.

Senator GOLDWATER. Mr. Chairman, did you include the joint statement?

Chairman TOWER. Yes; we will also include the joint statement. All the material you provided for us here will be included in full in the record.

Senator Goldwater, did you have any comment to make before we begin?

Senator GOLDWATER. No; thank you.

Chairman TOWER. Mr. Secretary?

TESTIMONY OF HON. VERNE ORR, SECRETARY OF THE AIR FORCE

Secretary ORR. Mr. Chairman, Senator Goldwater, I will not summarize the statement which is before you, but there are a very few comments I would like to make about the Air Force.

First, may I thank you for this opportunity to present our 1983 budget, I should also like to say that the Air Force is in excellent shape, and that also calls for a word of thanks to you and the members of this committee and other Members of Congress who have made that possible through your deep concern for the financial needs of the people of the Air Force.

RECRUITING AND RETENTION

Both recruiting and retention are in excellent shape. At the present time we have recruited 80 percent of all the nonprior service recruits that we expect to bring in for this entire fiscal year. We have either brought them on board or have them signed up, and we project 92 percent of those recruits will have high school diplomas.

With our improving quality, we are growing ever tougher on such issues as drug usage. We have been one of the leaders in the Defense Department in emphasizing that drugs and military service don't mix, and we have informed all field commanders that they may further tighten their discipline.

In retention, the same good story holds true. Our first and second term reenlistments are up. With pilots and engineers, our retention is better. Now, one might say that these results are due to the recession. After all, the airlines are not hiring, and maybe our skilled people can't find jobs. There is undoubtedly some truth to this assertion, but one of the interesting examples where this does not seem to be true is in the case of the air traffic controllers.

We sent out approximately 600 Air Force air controllers to work side by side with those civilian air controllers in FAA who had not gone out on strike. These military personnel would have been easy targets to go into civilian life, particularly those who terms expired during this year. At one time we thought, possibly only 15 percent would stay in the Air Force. Instead, we have retained nearer 60 percent. An outstanding number of them are returning.

PAY AND ALLOWANCE INCREASES

In addition to the pay and the allowance increases which this committee and other Members of Congress have made available, I think there is one other factor that is extremely important in both recruiting and retention, and that is the different view that the people in the United States now take toward persons in uniform. It is once again a matter of great pride to wear the uniform into a public gathering, whereas only 10 years ago most military men and women preferred not to wear their uniforms out in public.

We still have some problems in pay and allowances. For example, we still pay 13 cents a mile for someone to take his car on permanent change of station. I was in business in 1966, and it is interesting that I was paying 13 cents a mile to people in my organization at that time for the use of their personal cars. We think it costs a sergeant about $1,200 out of his pocket to make a change of station move, when we require it.

We also have some shortages in housing which we are working to correct. About 43 percent of our people overseas live in Air Force housing. The other 57 percent have to live on the economy, and on a sergeant's wages in a city in Europe it is very difficult to get anything satisfactory or substantial that is livable for his family.

In short, we have some worries. The pool of manpower is going to go down, they tell us, in the nineties. We are short on engineers. While there is no overall shortage of doctors, we are short doctor specialists. However, I am very proud to tell you that as of today, the Air Force is in excellent shape people-wise. We are on an upbeat trend. Morale is extremely high, and again, I would like to

express our appreciation to you, Mr. Chairman, and to the members of the committee and the Members of Congress who have made this possible.

[The prepared statement of Secretary Orr follows:]

PREPARED STATEMENT BY HON. VERNE ORR, SECRETARY OF THE AIR FORCE

Mr. Chairman and members of the committee. I am indeed honored to have the opportunity again to appear before this committee and to present, for your consideration, the fiscal year 1983 Air Force Program. It is an affordable program developed to continue the momentum of last year and restore to this nation the military capability required to maintain our own security and that of our allies.

I am also happy to report that in the year since my last appearance before this committee, the Air Force has progressed toward a more capable and resilient force, better able to meet the numerous challenges and threats presented by the tremendous buildup in Soviet weaponry and the accompanying Soviet expansionist foreign policy. As a direct result, our nation is, today, moving toward a more secure future.

In short, I believe that we are "turning the corner" away from years of neglect of our defense needs and that this has resulted, in part, from a President who has put a new vigor into restoring the military capability of this nation along with a dedicated and highly motivated military force led by professionals of the highest caliber, such as the man who sits besides me, General Allen. The program we present today and which is detailed in the Posture Statement that we are now tabling, is one which we both support fully and consider vital if the progress made during the past year is to be continued into the future.

In a very real sense, this progress is a direct result of the efforts of this committee. I speak for every man and woman in the Air Force when I say that we are most grateful for your continuing support.

In terms of our nuclear capability, the President's announcement in October of a comprehensive strategic modernization program was a significant step toward redressing the strategic imbalance with the Soviet Union. The Air Force has the responsibility to implement the bulk of this program. In terms of conventional forces, the priority emphasis that has been placed on improving the readiness and sustainability of our tactical and airlift forces is bearing fruit. The recent airlift decision is designed to give this nation the capability to meet the Soviet threat head-on, wherever it occurs. Our fiscal year 1983 program contains the blueprint and funding profile to implement these programs. General Allen will address them further in his remarks.

Ultimately, however, the actual combat capability and, thus, the deterrent value of the Air Force depends on having adequate numbers of highly qualified, motivated and technically competent people—military and civilian, active and reserve. The most advanced weapon systems in the world are useless unless you have the people competent to operate and maintain them. For this reason, it is people that are my number one priority. I would like to discuss with you briefly what has been accomplished and what remains to be done.

You may know that since becoming Secretary last February, I have had the opportunity to travel to more than two dozen Air Force bases on two continents to talk with our men and women, to learn of their needs and concerns. I am happy to report that morale is high and our personnel are competent and effective.

Our recruiting efforts are moving forward splendidly. For fiscal year 1981, the Air Force set a target that 88 percent of the recruits with no prior military experience should be high school graduates and that target was achieved. For the current fiscal year, we have increased the target to 92 percent and are confident that it will be met. A similar story is found in the area of retention.

The most critical problem that the Air Force faces today is retaining the right numbers of quality people to support mission requirements. In this effort to retain quality people, we in the Air Force are engaged in a highly competitive enterprise with private industry. The intense competition that takes place between the public and private sectors over funds is more than equalled when it comes to people. Surveys of people entering the service indicate that the two major motivations for joining the Air Force are education and training. Those two functions we do quite well, in fact, in some respects too well. For once we educate and train our people, they become highly prized resources for which the private sector is willing to pay dearly. We are forced, therefore, to compete with that sector to retain these people. Not an easy task today—and a more difficult one tomorrow when you realize that while

there will be an expanding national requirement for highly qualified individuals, there will also be a diminishing national supply.

Fortunately, the retention decline of the late 1970s, which drained much of our experience base, has been reversed and the upward retention momentum which began in fiscal years 1980/81 has continued into fiscal year 1982. First-term reenlistment rates are up nearly 20 percent and second-term reenlistment rates are up nearly 15 percent over the previous fiscal year.

Officer retention has also improved. Retention among pilots today has increased by nearly 30 percent over the previous year and retention among our engineering officers has increased slightly over 30 percent since fiscal year 1979.

We also find that fewer people are retiring voluntarily. During fiscal year 1981, 25 percent fewer officers and nearly 20 percent fewer enlisted retired. In fact, the current retirement rate is the lowest it has been since the early 1970s.

These gains result from a new appreciation by the citizens of this nation for the contributions of the men and women in uniform. My officers tell me that they now wear their uniforms where they never wore them a few years ago. These improvements also are the result of the compensation gains provided by the Uniformed Services Pay Act. And for that we tip our hat to this committee. With your support, we have been able to restore pay comparability through last year's 14.3 percent pay raise for officers and the 10–17 percent raise for enlisted personnel; provide a cost-of-living allowance (COLA) for singles stationed overseas living in government quarters; provide advance travel payments for dependents in PCS moves; repeal the overseas dependent ceiling, which had been set at 123,000; increase the Aviation Career Incentive Pay (ACIP) by 30–35 percent and provide it to those who have over 25 years of service and are in operational flying positions; increase and expand hazardous duty incentive pay; and finally, increase the Serviceman's Group Life Insurance (SGLI) to $35,000.

I need to add a note of caution however. My concern is that the gains that we have made may be fragile. The improvements in recruiting and retention obtained this past year are largely untested in a strong economy with low unemployment rates. If the efforts which we in the Air Force and you in the Congress began in the past two years are to be sustained, much remains to be done.

For example, we face a significant challenge in the recruiting area. We know that the recruiting function will become more difficult in the future as a result of the decline in the number of young men and women eligible for service. The number of 18-year-old males eligible for military service will decline by 14 percent by 1986 and by as much as 22 percent by 1992. Unfortunately, this will occur at the same time that countering an increasingly sophisticated threat will require more highly qualified people.

The problem therefore is not only Quantity, it is also Quality. The Air Force must compete for skilled people. For example, the shortage of engineers is a national problem. By 1990, we project a shortage of more than 114,000 engineers nationally. Within the Air Force, there is, at present, a shortage of approximately 1,000 military engineers, a shortage that is expected to continue through 1983.

There are similar shortages among our civilian employees. Currently, there is a shortage of about 1,700 civilian engineers and that deficit is expected to continue to exist for some time. Despite reduced employment levels and the civilian pay limitations, however, we have been able to maintain a high quality civilian work force.

There is one specific compensation-related problem which exemplifies the need to improve overall reimbursement for the movement of our people and which is adversely affecting the morale, retention, and hence the readiness of enlisted personnel. The loss of per diem equity for enlisted members through a funding restriction in the fiscal year 1982 DOD Appropriations Act represents our most serious problem in terms of negative impact on morale, while its application to Permanent Change of Station (PCS) moves constitutes a major setback in our efforts to eliminate the "negative compensation" our people incur when ordered to relocate. I urge the Congress to provide the Department with relief from the requirement to reduce enlisted PCS travel reimbursements and to permit us to restore full per diem equity to enlisted members.

Another area of concern that must be addressed in the Quality of Life in the Air Force. We take pride in saying that, "The Air Force is a great way of life." The challenge, however, is to ensure that it continues to be so. Our program is designed to do just that. We need to do such things as build base-level Family Support Centers to consolidate base/community support activities, upgrade the quality of military family housing by constructing new homes and by renovating existing ones; upgrade the quality of dormitories and BOQs; bring the standards of work and office facilities up to that common in the civilian business community; improve enlisted

dining facilities; and modernize transient facilities for accompanied and non-accompanied personnel.

The fiscal year 1983 program that General Allen and I present to you today is focused on addressing those needs and challenges. We support a predictable, visible, easily understood, stable pay adjustment mechanism. Military compensation must provide a reasonable standard of living, and also support our unique military institutional values. Our fiscal year 1983 budget includes a series of PCS reimbursement initiatives as well as a number of health benefit enhancements.

Finally, I want to say something about good stewardship. We in the Air Force realize that, if we are to continue to build for a strong defense, we must maintain the confidence of the American people. Maintaining this confidence requires that we spend defense dollars wisely. The consensus for defense demands that we be good stewards, and I pledge that we will do everything in our power to deserve the public's support and trust.

To work toward that goal, our fiscal year 1983 Posture Statement outlines a five point Integrity and Management Improvement Program. This program will serve as an umbrella for many existing oversight, cost awareness and incentive programs and will add new management, emphasis and cross-feed to obtain efficiencies at all levels of the Air Force.

A major part of this program is aimed at acquisition management. In this area we are implementing a series of specific actions which will result in significant savings in new weapons systems by reducing acquisition costs, shortening acquisition time, and improving the selection management and support process. Multiyear contracts are one of the major efforts in this area. By avoiding yearly contractual processes and retaining contractors and quality control procedures over several years, the multiyear contract produces direct and indirect savings in contract administration. For example, in the case of the F-16, we estimate saving $259.5 million over the next 4 years.

To conclude my opening remarks, permit me to add a personal note. I believe that in the past year we in the Air Force and you, the members of this committee and this Congress, have made significant progress toward restoring the defense capability of this nation. The fiscal year 1983 Air Force budget and program builds upon that effort. I look forward to working with you this year as we have in the past to make this goal a reality.

Thank you.

Secretary ORR. With your permission, I would like to ask General Allen to touch very briefly on some procurement factors in the Air Force

Chairman TOWER. General Allen?

TESTIMONY OF GEN. LEW ALLEN, JR., CHIEF OF STAFF, U.S. AIR FORCE

General ALLEN. Thank you, Mr. Chairman, Senator Goldwater.

I would like to emphasize that the joint statement which you have before you represents our full agreement on the key priorities and programs of this Air Force budget. We have made a great deal of progress, in personnel as well as in equipment programs, and it is in large measure thanks to the support of this committee.

I believe that we are in a particularly dangerous and difficult period, brought about by the continued growth of Soviet military capability and by the deficiencies which we have allowed to be created in our establishment over the last decade. These advantages which the Soviets have in certain places, in particular scenarios, increase the potential for conflict and put us into what I think is a dangerous decade before us.

We have to rebuild our strength, and we have to do that quickly, and we have to do it in a manner which preserves a steady pace of growth and shows a determination and resolve which will add to our immediate capabilities in order to maintain the deterrence that is so necessary.

We are on a good start for such a rebuilding. The 1981 supplement and the 1982 amended budget, which have been approved by the Congress, are excellent budgets which addressed our key deficiencies, and which will make major progress. Although many of the items in those budgets will not be seen on the shelves for perhaps another year or so, the fact is throughout the Air Force, one sees clearly increased morale and rising expectations of improved readiness and sustainability of current forces, because of the knowledge that the pipeline is once again filling, and that the supplies will be coming to the forward bases.

That is not known only to those of us who are involved in the high levels of budget formulation. That information has now gotten out to all the forces in the field, and the change in attitude and the change in morale in terms of confidence and fighting capability can clearly be seen.

We continue that progress in this program. We continue it in terms of readiness and sustainability improvements. The things we plan to procure are those which will improve the combat capability of existing forces. In order to do that, we have made some tough choices in this budget, and we will explain those to you as we go along. It is a sound course. It is one which will get us where we need to go if we persevere along on that course.

Now, I would like to emphasize a few of our programs. We have continued to emphasize the strategic nuclear capability of the country as the most important priority, and within that category, the Air Force, of course, has the responsibility for the ALCM program on the B–52's, that is proceeding well, with added ALCM procurement underway.

We have obtained a first alert capabililty in the ALCM-equipped B–52G's, and we will proceed to initial operating capability within roughly a year. The testing and development of that system meets our expectations, not without difficulties, but it is a good system.

The B–1B has been placed on contract with Rockwell, and an engine contract with General Electric will follow soon. We recognize a very severe management challenge to hold that program firmly to its cost and schedule objectives. We have established extraordinary management procedures in order to insure that we do that, and I have confidence we will succeed.

It will not be easy, of course, for a program of this size, but we have a sound basis of prior development and tests. We know what we are doing. We have a sound contract structure now, and we will proceed in accordance with the schedule you have approved.

MX MISSILE

The MX missile continues on schedule, and the tests and development milestones are being met very successfully. Clearly, difficulties remain in the basing system. We have decided, in accordance with the President's decision on the program, to implement the near term interim basin plan by placing 40 MX in Minuteman silos. We have not selected the specific silos for that purpose, but we have chosen Minuteman instead of the Titan silos.

We will proceed down that path while we continue to examine the more permanent basing options which provide what we all recognize as essential, and that is survivability.

We must proceed with this missile. We must proceed with its interim deployment, both for the contribution it makes to the balance between ourselves and the Soviet Union, and also for the need to restore that balance promptly in order to permit meaningful strategic arms reductions to be seriously discussed.

GENERAL PURPOSE FORCES

Now, in the general purpose forces, we have made choices again to emphasize capabilities which are realizable with confidence within this decade. We have done that by continuing to fund the readiness and sustainability accounts. We have fully funded our depot maintenance and we have funded fully the war reserve materials required with [delete] days of combat, and will continue that throughout the planning years to bring that as quickly as possible up to [deleted].

We are extremely satisfied with the aircraft we are introducing into inventory, the A-10 for its special purposes, and the F-15 and the F-16 as a new generation of fighter aircraft of truly superb characteristics. This development and introduction of new fighters into the inventory has gone more smoothy than the introduction of any fighter aircraft in the history of the Air Force. Safety records are better than they have ever been in the history of the Air Force in terms of new fighter aircraft being introduced.

Chairman TOWER. You say safety records are lower.

General ALLEN. Yes, sir, the accident rate is lower. The safety record is better.

Chairman TOWER. All right.

General ALLEN. The maintenance man-hours per flight-hour in these aircraft are much lower than those of the aircraft they replace, so the airplanes are turning out to be very effective weapons which are maintainable and supportable in the field as long as we provide spares and support to them. This budget continues our determination to do that.

AIRLIFT

Now, in the area of airlift, we have faced a set of difficult issues which have been resolved with this budget. We have decided to proceed with acquisition of the C-5B aircraft. This involves the restart of the C-5 line to produce an aircraft which is as near as is reasonable to the C-5A. We will purchase 50 C-5B's under the terms of a favorable firm fixed price contract which was offered by Lockheed.

In addition, we will complete the favorable contract option we still have for 60 KC-10's with the purchase of an additional 44 of the KC-10's out over the program period. Funds for the initiation of both those programs are contained in our budget request.

These decisions were made in order to provide airlift to satisfy the most urgent needs for deployments to both Europe and Southwest Asia as well as Korea in as short a time as is reasonable to do so. We have reviewed thoroughly the many options that were open to us, including the C-17, which had a number of advantages, and

purchase of additional commercial aircraft, and we have settled on the present course as being the best for improving our capability at a reasonable cost to the taxpayer.

I think that we are, overall, on the right course to meet the threat which is real and urgent. The program we have set forth will provide the strength that is needed in this decade to continue deterring war and to fight if we have to, if we persevere along this course. We have no doubt that there is sacrifice required of the American people to fulfill our country's responsibilities of world leadership and national security.

It will not be easy, but this is a dangerous decade for democracy, and I don't believe we can afford to do less than the program we have submitted to you.

Thank you.

Chairman TOWER. Thank you, General Allen.

[The prepared statement of General Allen and the joint statement of Secretary Orr and General Allen follow:]

PREPARED STATEMENT BY GEN. LEW ALLEN, JR., CHIEF OF STAFF

Mr. Chairman, members of the committee, I welcome the opportunity to appear before you this morning with Secretary Orr to support our requests contained in the fiscal year 1983 Air Force budget. As signified by our joint statement, the Secretary and I are fully in accord on the priorities and programs presented and on the challenges confronting the Air Force. In my opening remarks, I would like to underscore a few points of particular significance to the future capabilities of the Air Force.

Before turning to specific programs, I would like to thank the committee for its strong and consistent support of our defense needs. Because of your support, we are making significant progress toward building the Air Force we must have to counterbalance the unrelenting growth in Soviet military capabilities.

With the program before you, we will be acquiring capabilities that will help us to regain an adequate strategic nuclear balance, forces with the flexibility and effectiveness to continue to deny the Soviets the prospect of victory in any nuclear conflict. Our general purpose forces programs will strengthen our ability to deter and, if necessary, to defeat Soviet aggression in key areas of interest. In concert with our allies, we will be improving our collective ability for strong forward defense in Europe and Korea and for an effective response to further Soviet aggression in Southwest Asia. Airpower is an essential element of this strategy. The Air Force has the right people, the right training and the basic equipment to meet the demanding challenges which lie before us. As a nation, we must have the courage and steadfastness to carry-out the essential improvement programs we have begun and stay what will necessarily be a long course.

The significant real increase in the fiscal year 1983 Air Force budget and the growth projected over the planning period are made necessary by the accumulated deficiencies in our forces resulting from inadequate attention to our defense needs in the preceeding decade and by the continued expansion of Soviet military might. We must strengthen both our nuclear and conventional forces. The Soviet challenge remains formidable, indeed.

As we have moved to correct accumulated deficiencies in our forces, Moscow has continued to add to its already massive arsenal. The strategic nuclear balance remains unsatisfactory, and the momentum of on-going Soviet programs will continue to tilt that balance in the Kremlin's favor for the next few years until we field the new strategic systems called for in the President's program. Soviet industry also continues to produce a steady stream of new aircraft, tanks, artillery, missiles and ships.

In short, while we have begun to make progress in improving our defense capabilities over the past few years, we have not yet closed the gap. Our adversary has not waited for us to catch up; he has continued to build. And, all signs indicate that, despite the economic hardships imposed on the people of the USSR by the Kremlin's single-minded devotion to the accumulation of military power, this unprecedented effort will not soon abate.

The Soviets have not accumulated this awesome military arsenal solely for defense of the Fatherland or even their swollen empire. Their military forces far

exceed those required for defensive purposes. Instead, these growing forces are designed to support the Kremlin's unmasked aspirations for imperial expansion as demonstrated by Moscow's continuing brutal occupation of Afghanistan, its scarcely veiled direction of repression in Poland and its sponsorship and military assistance to so-called "liberation" movements around the globe.

We must recognize that we are engaged in a protracted conflict with the Soviet Union. Our views of the rights of men and nations are inextricably opposed. Soviet actions are today and will continue to be inimical to our interests. There will be no quick solution to the fundamental differences that divide us, no quick fixes to the defense challenges that lie before us. The United States and its allies must maintain the range of military capabilities needed to counterbalance Soviet military power to meet and defeat a major Soviet attack, wherever it might occur. Only such clearcut military capability can provide us with an effective deterrent.

If we can muster the determination and persistence to proceed with the course set in this defense program, I believe we will have the military strength needed to get through the difficult period that lies ahead. We will thus make obvious to the Soviet leaders that time is not on their side and the so-called "correlation of forces" will not favor the Soviet Union. If we should fail to follow through on the path we have set, however, the Russians will continue to gain in relative military power and our ability to deter aggression will be dangerously weakened.

As I noted earlier, we are beginning to make good progress toward the essential strengthening of our defenses, but, much remains to be done. We must improve the survivability and effectiveness of our strategic forces; further enhance the combat readiness and sustainability of our general purpose forces; expand our airlift capability; and modernize and expand our tactical fighter forces. And, as Secretary Orr emphasized, key to our force improvement efforts is having adequate numbers of experienced, motivated people to man and maintain our systems.

While we must improve all elements of our forces to meet the country's defense responsibilities, our paramount need is to increase the survivability and effectiveness of or strategic nuclear forces.

We must proceed with an overall strategic modernization program that improves the survivability of our strategic forces, restores our strength relative to that of the Soviet Union, and assures that the Kremlin is denied any prospect of success in nuclear conflict. The broad strategic improvement program set forth by President Reagan last fall is designed to fulfill these objectives. We must proceed with it quickly; we must proceed with it resolutely. There must be no doubt in the minds of our foes and friends alike that we have the determination and capability to match the Soviets in strategic strength, both to deter Soviet aggression and coercion and to provide a sound basis for the negotiation of equitable agreements to reduce strategic arms. Arms limitation negotiations can succeed only if we can bargain from a position of strength. Without a vigorous U.S. strategic modernization effort, the Soviets would have little reason to negotiate toward meaningful reductions in our respective nuclear arsenals.

We have embarked on a threefold program to rebuild our bomber forces. We will be fielding 100 B-1B bombers in the latter half of this decade, increasing procurement of air launched cruise missiles, and pursuing vigorously the development of an advanced technology bomber.

With last fall's congressional approval of the B-1B program, we are moving out smartly to bring this vital program in on time and within cost. We are confident we will meet the cost goal of $20.5 billion in fiscal year 1981 dollars we have set for the B-1B program and have instituted extraordinary management procedures to that end. We signed contracts with Rockwell last month for production of the initial aircraft and our first B-1B squadron will enter operational service on schedule in 1986.

The B-1B will incorporate advances in design and avionics that will make it highly survivable against both existing and projected threats. It will include a combination of techniques to reduce its radar cross section by a factor of one hundred below that of the B-52 and will include the latest developments in electronic countermeasures. From our continuing analysis, we remain confident that the B-1B will be able to penetrate Russian air defenses and strike targets throughout the Soviet Union well into the 1990s, even though we expect the Soviets to make major improvements in their air defense capabilities over the course of this decade.

We are also proceeding with the development of the Advanced Technology Bomber and are determined to bring it on board at the fastest reasonable pace. We recognize that it is essential for us to deploy an advanced bomber that is effective across a range of combat applications and is durable and maintainable as well. We are confident our program will meet these objectives. And, if technology and our

development efforts permit, we will do our best to accelerate this important program.

In addition to rebuilding our bomber fleet, we must improve the survivability and capability of our land-based ICBMs. ICBMs with their very high accuracy, responsiveness, virtually assured penetration, and retargeting capability, remain the centerpiece of our strategic deterrence and defense capability.

With our fiscal year 1983 budget request, we will complete the development of the MX and fund production of the first nine missiles. Our first flight test is slated for next January, leading to an initial operating capability in 1986. Deployment of the MX will begin to alleviate the asymmetries in ICBM capabilities that have developed in recent years as the accuracy and number of Soviet warheads has markedly increased.

As the committee is aware, developing and reaching agreement on a long-term survivable basing mode for MX has proved difficult. We are engaged in an aggressive research and development effort to develop more survivable basing modes. We are examiming Deep Basing, Continuous Patrol Aircraft and Ballistic Missile Defense basing alternatives, with the aim of reaching a long term basing decision in 1983. In the interim, we will deploy a minimum of 40 MX missiles in existing Minuteman silos.

Though not a lasting solution to growing ICBM vulnerability, initially deploying MX in silos will complicate and add uncertainty to Soviet attack calculations. More importantly, it is a needed early step toward countering Soviet ICBM capabilities. With greater accuracy and more than three times as many warheads as our newest Minuteman missiles, the MX will be able to destroy high value Soviet targets such as hardened command posts, nuclear storage sites and missile silos. It will thus confront the Soviets with some of the vulnerability problems that their Navy, accurate SS–18 and SS–19 ICBM's present to us.

While we must, as a matter of urgency, rebuild our nuclear deterrent, we must also continue to improve our general purpose forces. With Soviet conventional capabilities steadily expanding, it is imperative that our conventional forces have the capability to deploy and employ effective fighting power rapidly. Accordingly, our fiscal year 1983 budget continues the priority emphasis of the preceding two budgets on enhancing the readiness and sustainability of our tactical and airlift forces.

We will increase tactical flying hours by eight percent, bringing the average flying hours per pilot up to about 18 hours per month compared to less than 15 in 1980. With our fiscal year 1983 request, we will eliminate the long-standing backlog in depot purchaed equipment maintenance, we have fully funded both peacetime and initial war reserve spare parts for our tactical forces, and we will achieve full wartime operating capability for our strategic airlift aircraft by fiscal year 1986. Over the 5-year program period, we will invest nearly $20 billion to upgrade our munitions inventory in order to bring our stocks up to the levels required to fight and win a prolonged conventional conflict.

I would like to thank this committee personally for your strong support of our operations and maintenance and logistics support requests over the past several years. As you know well, these less glamorous nuts and bolts accounts are the key to combat readiness and staying power. I solicit your continued backing for our efforts in these important areas.

The global character of U.S. interests and commitments makes it imperative that we maintain forward deployed forces in key regions and that we be able both to reinforce those forces rapidly and to deploy effective combat forces worldwide with great dispatch. Improved mobility is absolutely essential if we are to bring U.S. military power to bear in distant regions with the speed dictated by the nature of modern warfare and to sustain effective combat. The inadequancy of our long-range airlift is the principal deficiency in our reinforcement and force projection capability.

In light of the urgent and compelling need to be able to transport large quantities of equipment and supplies over intercontinental distances, we have modified our earlier airlift plans. Our previous program would not have provided the needed increases in airlift capability before the end of the decade. Because we believe we cannot afford to wait that long, we now plan to proceed with a combined program that will substantially increase our long-range airlift capability over the next few years. When this new program is carried out and the modifications to present C–141's and C–5A's are completed, we will have an airlift capacity of 50 million ton-miles a day—a doubling of our present capability.

We plan to procure 44 additional KC–10's which can both refuel our deploying fighters and transports and carry cargo, thus enhancing our rapid deployment capabilities. We will be able to take advantage of a particularly favorable contract

option in acquiring the additional KC–10's. And, to increase our capability to transport large volume cargo, particularly "outsize" equipment such as tanks, self-propelled artillery, and helicopters, we will be acquiring 50 new C–5N's, an improved version of the C–5A's in our present airlift fleet. With no research and development required and with an existing production base, we will be able to field C–5N's in the middle of this decade, well before a new production aircraft would be available.

Finally, and most importantly, our budget request emphasizes programs designed to provide adequate compensation and improved quality of life for our service men and women. We must continue to demonstrate to our people that their service is valued by the nation they serve.

In closing, I would like to stress again the imperative of continuing to strengthen our military capabilities. The Soviet threat is real; it is serious; it is growing. If we are to contain Soviet expansionism and protect our free way of life, we must face this challenge squarely and counterbalance the steady growth in Soviet military might.

The way is clear. The programs before you reflect our best judgment of the correct path to follow. We must proceed with courage, with commitment, with perseverance.

I urge you to assist us in strengthening the Nation's defense.

JOINT STATEMENT BY HON. VERNE ORR, SECRETARY OF THE AIR FORCE, AND GEN. LEW ALLEN, JR., CHIEF OF STAFF, U.S. AIR FORCE

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I. INTRODUCTION

The principal security challenge facing the United States is the threat posed by the continuing growth of Soviet military might. It is the imperative to counter-balance Soviet military capabilities that sets our military requirements and fundamentally sizes and shapes our forces.

The United States has the unique responsibility for maintaining an effective strategic nuclear deterrent and an acceptable balance of central strategic and regional nuclear capabilities with the Soviet Union. To fulfill this key responsibility in the face of the continuing build up of Soviet nuclear capabilities, we must proceed apace with the strengthening of our strategic forces set in motion last fall.

The United States must also provide the leadership to contain Soviet expansionism. We, in conjunction with our allies, must develop and maintain warfighting forces, both conventional and nuclear, of sufficient combat power and readiness to deter Soviet aggression and defend Western interests wherever they may be threatened. To maintain a credible deterrent and defense posture, our collective forces must have the capability to deny the enemy the objectives he seeks at any level of conflict.

It is in Europe that the Soviets present us with our most demanding defense requirements. The bitter lessons of the first half of this century convinced us that our own security is inextricably linked to that of Europe. Consequently, in concert with our allies we must maintain sufficient collective military strength to prevent war from erupting in this area of vital interest to the United States.

In Europe we face, by far, the greatest concentration of Soviet forces. The Warsaw Pact forces arrayed along the German border today enjoy substantial numerical advantages over the forces of the North Atlantic Alliance in numbers of soldiers, tactical aircraft, and tanks. Western Europe has remained free of Russian domination not because Moscow does not wish to extend its hegemony westward, but because the Western Alliance has maintained strong and credible defense capabilities, even though outnumbered.

Soviet doctrine, force structuring and exercises reveal that in the event of a war in Europe, NATO would be confronted with a massive air and ground blitzkrieg offensive. To help counter this threat the United States must maintain a combination of forward deployed ground, air and naval units and a sizeable rapid reinforcement capability, backed by theater and intercontinental range nuclear weapons. Airpower plays a particularly critical role in our flexible response strategy. Airpower, because if its long range, speed and flexibility, allows the most efficient allocation of forward deployed and central reserve forces. With the Soviet-led Warsaw Pact increasingly capable of short-warning attack, such speed and flexibility is essential. To defeat a Soviet offensive, our air forces must, simultaneously, achieve and maintain air superiority, provide offensive air support to allied ground forces and attack reinforcing formations and other key targets behind enemy lines. At the same time, our mobility forces must be capable of carrying out the largest airlift of men, equipment and supplies in history.

While we have focused our attention on countering a major Warsaw Pact offensive in Europe, the prospect of Soviet aggression elsewhere — in Southwest Asia, for example, where Soviet control of the energy resources of that region would be devastating to the West — has also had a major influence on our force planning. In any major Soviet offensive, we would expect them to follow similar tactics featuring assaults by massed armored forces reinforced by succeeding waves and supported by air attacks. Our tasks

would, however, be complicated by distance from the United States and the lack of forward deployed US forces as well as an absence of substantial allied forces and limited support facilities. As with defense in Europe, airpower, with its speed and flexibility, provides an essential element of our combined arms deterrent to discourage aggression or coercion in other parts of the world. Our ability to deploy forces rapidly and to disrupt and delay enemy advances via interdiction strikes by long range aircraft is a critical element of our defense strategy.

It is these demanding requirements that underlie our FY 83 budget request. To provide a capability to counter the relentless growth in Soviet military power, we must develop and maintain air and missile forces that: (1) restore an adequate strategic and theater nuclear balance; (2) deny the Soviets any prospect of victory in a nuclear conflict; (3) can be flexibly employed to fulfill multiple theater warfare missions; (4) possess sufficient range and aerial refueling capability to deploy independent of en route bases if need be; (5) are able to conduct combat operations at night and in adverse weather conditions; (6) can penetrate Soviet defenses and destroy heavily defended targets; and (7) are ready and can fight as long and hard as needed to win.

While there is much to be done to meet the demanding challenges that confront us, we can take pride in the significant progress we have made during the past year in strengthening our defense capabilities. Substantial real increases in the past two budgets have enabled the Air Force to make much needed improvements in our combat strength.

Thanks to the compensation improvements enacted by the Congress and greater public recognition of the value of military service, we are seeing marked improvements in recruitment and retention. Our reenlistment rates for FY 1981 were up by 15-20 percent over the preceding year, and, of particular importance, pilot retention increased nearly 30 percent. These very encouraging signs notwithstanding, our personnel situation remains fragile. We still have shortages of experienced personnel -- shortages caused by the exodus of skilled people in the late 1970s. Therefore, our recruiting and training requirements remain high.

We are now embarked on a comprehensive program to modernize our strategic nuclear forces. It will enable the United States to restore the strategic balance, deny the Soviets any prospect of gain from nuclear conflict, and provide a sound basis for the negotiations of equitable arms reduction agreements.

The priority emphasis the Air Force placed on improving the readiness and sustainability of our tactical and airlift forces over the past two years is bearing fruit. Our units are now better prepared for combat and we have committed additional resources that will yield further improvements over the next few years. Our operational units are flying more and training more effectively. Though our stocks of munitions are not yet at the level we would like to achieve, supply bins are beginning to fill and we have the needed stocks on order.

We are proceeding with the modernization of our tactical forces at a steady pace, replacing our Vietnam vintage aircraft with a new generation of advanced tactical fighters. Our F-15s, F-16s and A-10s have proven themselves not only highly capable, but exceptionally reliable and maintainable as well. Our F-15s and F-16s, that have demonstrated their combat prowess, are requiring significantly less maintenance than the aircraft they are replacing. Furthermore, they have compiled excellent safety records.

Because of the attention to defense needs and budgetary increases of the last few years, we are well on the way toward correcting long standing serious deficiencies in our military forces. The Air Force is, today, an effective fighting force. Air Force units are equipped, trained and ready to bring fighting power to bear anywhere in the world in a matter of hours. But, we still have some ways to go. We need to (1) increase aircraft production to prevent obsolescence and maintain an effective force; (2) provide our tactical fighters with improved capability to operate at night and in adverse weather; (3) restore experience and skill levels; and (4) in some cases, expand our force structure.

We must continue to strengthen our military capabilities because we are locked in a demanding long-term competition with a determined Soviet foe. The leaders in the Kremlin, backed by growing military might, are aggressively pursuing Soviet interests worldwide in ways detrimental to the West. It is a classic confrontation between radically different systems: individual liberty contrasted to repression; free enterprise versus a command economy; national self-determination opposed to Russian imperial hegemony. It is a contest which we cannot wish away. We must respond to this global challenge or else we surrender our future to the will of an adversary whose brutal actions at home and abroad leave room for no illusions about the bleak future we would face.

In all areas of peaceful competition with the West, the Soviet Union fares poorly. But, our successes in this peaceful competition are dimmed by the specter of growing Russian military might. The Soviets have given overriding priority to the one area in which they excel — the accumulation of military power.

Two decades of massive military spending have underwritten an awesome expansion of Soviet weaponry across the full spectrum of military capabilities. Over the past decade alone Soviet defense spending has exceeded comparable US spending by more than 40 percent. The Russians devote 12-14 percent of their annual GNP to the military compared to less than 7 percent in this country. As a consequence, the USSR has overcome many of the military advantages previously possessed by the West and has matched or surpassed us in important measures of military power. The Soviet Union has altered both the reality and perception of the global military balance. This increased strength has given Moscow the confidence to undertake military actions it might have considered too risky a decade ago when the balance favored the West.

Ensuring that our forces are strong enough to meet the Soviet challenge is made more difficult because we are competing against a foe that continues to improve his military capabilities.

To continue the essential strengthening of our forces, the Air Force is requesting $78.3 billion in total obligational authority for FY 83. Our proposed budget provides a balance among programs to improve the weapons, training, support, and manning of our forces. With this budget request, our priority efforts are directed towards: (1) providing adequate compensation and improving the quality of life for our service men and women; (2) strengthening our strategic nuclear forces; (3) further enhancing the readiness and sustainability of our general purpose forces; (4) expanding our airlift capability; and (5) modernizing and expanding our tactical air forces.

While we must continue to improve all elements of our forces to meet the country's global responsibilities and defend our interests, our paramount need is to increase the survivability and effectiveness of our strategic nuclear forces.

The steady expansion and modernization of Soviet strategic forces has brought about a dramatic shift in the strategic balance. The momentum of Soviet programs has begun to tilt that equation significantly in Moscow's favor. Reversing this relative decline in our strategic capabilities is fundamental to our security.

The President's strategic modernization program provides the blueprint for rebuilding a strong, credible nuclear deterrent and defense capability. The Air Force has responsibility for implementing most of the elements of this comprehensive program. With the support given this program by the Congress last fall, we have set in motion the following steps that our FY 83 budget continues:

- Rebuilding our aging strategic bomber forces by fielding 100 B-1B bombers and increasing procurement of air launched cruise missiles, while also pursuing vigorously the development of an advanced technology bomber;
- Improving the striking power of our ICBM forces by deploying the M-X, initially in Minuteman silos, while pursuing the development of more survivable basing modes;
- Enhancing the survivability and performance of our command, control and communications systems to ensure that we can obtain warning of an enemy attack and can communicate with our strategic forces; and
- Upgrading the nation's defenses against bomber and cruise missile attack by replacing our aging F-106 interceptors with F-15s and improving our atmospheric warning and surveillance with the enhancement of the Distant Early Warning line, deployment of over-the-horizon radars on the East and West coasts, and the expansion of our fleet of airborne warning and control aircraft.

While we must, as a matter of urgency, rebuild our nuclear deterrent, we must also continue to improve our general purpose forces. With Soviet conventional capabilities steadily expanding, it is imperative that our conventional forces have the capability to deploy and employ effective fighting power rapidly. Accordingly, our FY 83 budget continues the priority emphasis of the preceding two budgets on enhancing the readiness and sustainability of our tactical and airlift forces. We have programmed increases in operational flying hours, further improvements in training, and provision of sufficient stocks of spares, munitions and other logistics support to enable our forces to fight effectively in a prolonged conflict.

Our proposed program also continues the modernization of our tactical forces. We will continue deployment of F-15s, F-16s, E-3As, TR-1s and complete our buy of A-10s. Our budget request provides for evolutionary improvements in these proven and reliable aircraft to enable us to defeat the Soviets in the air, to penetrate increasingly capable Soviet air defenses, to fight at night and in adverse weather, and to attack a range of fixed and mobile targets. We plan to acquire these systems at more efficient production rates though we still acquire them in numbers below those needed to expand our force structure in the manner that the growing threat demands.

The principal deficiency in our force projection capability remains the inadequacy of our long-range airlift. Our budget request continues the enhancements to our existing airlift fleet, but, even with these improvements the gap between lift requirements and our airlift capability remains large. To close that gap, we are proposing a two-part airlift improvement program. To enhance our mobility capabilities, we plan to procure additional KC-10s which can both refuel our deploying fighters and transports and carry cargo. And, to increase our capability to transport large volume cargo, particularly "outsize" equipment such as tanks, self-propelled artillery, and helicopters, we will be acquiring new C-5Bs, an improved version of the C-5As in our present airlift fleet.

Finally, and most importantly, our budget request emphasizes programs designed to provide adequate compensation and improved quality of life for our service men and women. We cannot afford to repeat the near disastrous loss of experienced people that occurred in the late 1970s and still affects our forces today. We must demonstrate to our people that their service is valued and rewarded by maintaining pay comparability, current retirement pay and entitlements, adequate compensation for services moves, and improved base facilities.

Despite the considerable progress we have made in improving our forces, we remain badly stretched relative to our worldwide responsibilities. The necessary strengthening of our military capabilities cannot be accomplished overnight or in a single budget. It will require our continued best efforts and steady real increases in defense budgets for years to come.

We can afford the cost of maintaining a strong deterrent and defense capability. We are at a critical point in our prolonged competition with the Soviet Union. We cannot allow the gap between US and Soviet capabilities to widen further. Our very security and well-being is at stake. We must bear the burden now and correct the deficiencies in our military capabilities. We cannot afford the risk of conflict that would occur should we fail to provide adequate military forces.

We fully recognize the importance of a strong, healthy economy. We are committed to make the most cost-effective use out of every defense dollar, and we are aggressively seeking economies and efficiencies in the way we do our business. In support of the Administration's efforts to enhance productivity and achieve greater economies, the Air Force has undertaken a range of cost-saving initiatives, and we have identified over $1 billion in savings last year encompassing a wide range of procurement, engineering, and day-to-day activities. Through such initiatives as multiyear contracting we will realize further economies in 1982.

In sum, we must have military forces sufficiently strong and ready to meet our commitments and protect our interests around the globe. We are at a crucial point in history where international turbulence and the actions of an implacable and powerful Soviet adversary make it imperative that we strengthen our forces. We cannot afford the weaknesses and loss of credibility that a failure to face up to these challenges would bring.

We urge the Congress to support our FY 83 program so that, together, we may be able to provide the defense capability our country must have.

II. STRATEGIC FORCES

Soviet Strategic Capabilities

The steady expansion of Soviet strategic nuclear capabilities poses a clear and growing danger to Western security. During the past decade, while US strategic modernization programs were consistently stretched out, reduced, or deferred, the Soviet Union developed and deployed a steady stream of new, more powerful and increasingly accurate strategic systems. The modernization of Soviet strategic systems continues at a rapid pace with Moscow fielding new generations of more capable ICBMs, submarine launched missiles, and bombers.

As a result of their massive investment in strategic nuclear systems, the Soviets have wrought a dramatic shift in the strategic balance. Gone is the clearcut US superiority of the 1960s and the rough parity of the late 1970s. Today Moscow enjoys a position of some advantage and the momentum of on-going Soviet strategic modernization programs, if not countered by a vigorous US response, presents the ominous prospect of substantial Soviet superiority in the years ahead.

The most threatening aspect of the Soviet strategic build up has been the vast improvement in their ICBM force. In contrast to our reliance on a balanced Triad of strategic nuclear delivery systems, over 50 percent of Soviet strategic delivery capability and nearly 80 percent of their available warheads are concentrated in their ICBM force. While our newest missiles -- Minuteman IIIs -- entered the force in the early 1970s, the USSR has deployed more than 750 SS-17, SS-18 and SS-19 ICBMs, most armed with highly accurate multiple warheads since the mid-1970s. Moreover, Moscow is continuing to upgrade its arsenal and has under development a new generation of missiles.

These ICBM improvements -- in particular, the increased number of independently targetted warheads (MIRVs) with greatly improved accuracy -- have provided the Soviets with the capability to destroy a large portion of our silo-based ICBMs. This makes it imperative that we develop with dispatch a survivable basing mode for our ICBMs.

Land-Based ICBMs/RVs

USSR	ICBMs	RVs	US	ICBMs	RVs
SS-11	580	580	MM II	450	450
SS-13	60	60	MM III	550	1650
SS-17	150	600	Titan II	52	52
SS-18	308	2500			
SS-19	300	1800			
Total	1398	5540		1052	2152

Figure I.

The Soviet submarine-based strategic missile force is also being improved significantly. They are adding a new class of missile-launching submarine to their fleet which will be equipped with a longer-range, MIRV-capable SLBM. The Russians are also modernizing their bomber force, through the continued deployment of the additional Backfire bombers and the development of a new strategic bomber, air launched cruise missiles, and possibly a new cruise missile carrier aircraft.

The Soviets have been similarly active in improving their strategic defense. While complying with the 1972 ABM Treaty, they have continued vigorous research and development on ballistic missile defenses and are apparently in the process of upgrading the ABM system deployed around Moscow. Soviet homeland air defenses are also being improved significantly. Over the next several years they will be deploying a much improved airborne warning and control aircraft, improved internetting for their ground-based radars, interceptors equipped with an effective "look down, shoot down" capability and new surface-to-air missiles such as the SA-10. By the late 1980s these systems, in combination, will substantially reduce the penetration prospects of our B-52s.

The Soviet Union's strategic forces constitute a serious, growing, and sophisticated threat. Their deployments of improved offensive and defensive systems as well as more capable and survivable means to command and control them are disturbingly consistent with and supportive of the nuclear warfighting objectives posed by Soviet military doctrine.

Strategic Modernization Program

The challenge posed by the Soviets is formidable. We face the foreboding prospect of significant strategic inferiority unless we promptly undertake the necessary actions to strengthen our nuclear forces and restore the strategic balance. Correcting the strategic balance is fundamental to our security. It is es ential not only for the deterrence of nuclear war but also for its impact on perceptions of our reliability as an ally and our ability to restrain Soviet military and political adventurism.

We must proceed with an overall strategic modernization program that improves the survivability of our strategic forces, restores our strength relative to that of the Soviet Union, and assures that the Kremlin is denied any prospect of success in nuclear conflict. The broad strategic improvement program set forth by President Reagan last fall is designed to fulfill these objectives. We must proceed with it quickly; we must proceed with it resolutely. There must be no doubt in the minds of our foes and friends alike that we have the determination and capability to match the Soviets in strategic nuclear capability. We must restore our strategic strength, both to deter Soviet aggression and coercion and to provide a sound basis for the negotiation of equitable agreements to reduce strategic arms.

The Air Force has the responsibility to implement the bulk of the President's strategic modernization program. We will be improving the effectiveness of our ICBM force by deploying the M-X, and we will rebuild our aging bomber fleet by fielding the B-1B and equipping our B-52G/Hs with air launched cruise missiles, while also pursuing promising advances in the development of an Advanced Technology Bomber (ATB). To ensure that we can obtain warning of an enemy attack and can communicate with our strategic forces, we plan to improve the survivability and performance of our warning sensors and our command, control and communications systems. Finally, we will also be upgrading the nation's defenses against bomber and cruise missile attack.

Figure 2.

Manned Bombers. Strategic bombers have been the cornerstone of our nuclear deterrent since the dawn of the nuclear age. Moreover these bombers serve as a powerful complement to our tactical air forces for the rapid projection of power around the globe.

The United States must have a modern strategic bomber force -- a flexible, long-range striking force that can fulfill a wide range of nuclear and conventional missions. Bombers are the only element of the Triad of strategic forces that can be launched prior to a decision to employ these weapons. Weapons-carrying bombers can be launched to ensure their survivability or to signal national resolve during time of crisis -- with confidence that the crews can be redirected or recalled as the situation develops.

Bombers also provide the only capability to conduct damage assessment strikes against fixed targets and to engage unanticipated or mobile targets through the use of human judgment and onboard sensors to determine target location and status at the time of delivery. In collateral maritime roles, bombers can provide an important supplement to US naval forces, providing maritime support in long-range sea surveillance, ship attack and mine-laying. As reusable strategic weapon systems, long-range combat aircraft can deliver large nuclear or conventional payloads accurately throughout the spectrum of conflict.

Our force of B-52s has performed these multiple roles effectively for the past two and a half decades. But, their ability to perform these demanding tasks is diminishing. They are becoming more difficult and expensive to maintain and, more importantly, will become increasingly vulnerable to a Soviet first strike and to Soviet air defenses over the next several years. Because the B-52s are not fully hardened against the effects of nuclear blasts and are relatively slow in flying out from their bases, they are more vulnerable to attacks from Soviet submarines patrolling off our coasts than desired. Moreover, because of their large radar reflectivity and relatively slow speed at low altitude, the B-52 will become far less able to penetrate increasingly capable Soviet air defenses during the latter part of this decade.

The limitations of the B-52 make it imperative that we start producing a replacement aircraft soon. Accordingly, we have undertaken a three-part bomber modernization program designed to maintain the usefulness of the B-52 while laying the groundwork for our future bomber deterrent capability. The program calls for:

- Equipping our B-52Gs and Hs to carry approximately 3000 cruise missiles. As their penetration capability declines during this decade, these bombers will transition from a penetrator to a shoot-and-penetrate and eventually a pure stand-off delivery role.
- Production of 100 B-1Bs with an initial operational capability (IOC) of 1986. Its reduced radar cross-section, improved electronics countermeasures, high speed, and cruise missile carriage capability will enable the B-1B to serve as both an effective penetrator and a shoot-and-penetrate bomber against the Soviet homeland well into the 1990s. As the B-52 nears the end of its service life and as new ATBs enter the force in numbers in the mid 1990s, the B-1Bs will assume a greater share of the cruise missile carrier mission, eventually replacing the B-52s in this role. The B-1B will serve as standoff cruise missile carrier and conventional bomber well past the year 2000.
- Development and production of an ATB with an IOC in the 1990s. ATBs will be used initially to ensure effective penetration against the most heavily defended targets in the Soviet Union. Over the long term, the ATB will allow us to maintain the advantages of manned bomber weapons delivery into the Soviet Union into the twenty-first century.

We are proceeding with development of the ATB at the fastest reasonable pace. We recognize that it is essential for us to deploy a bomber that is effective across a range of combat applications and that it be durable and maintainable as well. Our ATB program is designed to meet these objectives. If technology and our development efforts permit, we will try to accelerate this important program. And if problems arise, we are determined to solve them effectively.

We are committed to producing the B-1B efficiently and within our projected cost guidelines, and are undertaking a number of steps to meet the program targets. The baseline program cost, in constant 1981 dollars, is $20.5 billion for 100 airplanes and initial spare parts. The total cost in "then year" is $29.5 billion. The basic aircraft design, including the necessary modifications to accommodate internal and external cruise missile carriage, has been completed and we will hold further design changes to an absolute minimum.

We are requesting about $4.8 billion in FY 83 for B-1B research, development, test and evaluation; initial spares, for the purchase of initial aircraft; and to allow for the necessary funding of long lead time procurement of follow-on aircraft. We are also requesting $2.1 billion in FY 83 to maintain and improve the B-52 force. This amount includes requisite reliability and maintainability activities, research and development, and modifications associated with cruise missile integration.

Air Launched Cruise Missiles (ALCMs). We are beginning to deploy the air launched cruise missile, a survivable, accurate long-range weapon that will increase targeting and routing flexibility, and reduce exposure of our bombers to present and projected air defense systems. The addition of large numbers of cruise missiles will also assist B-52 and B-1B penetration missions by confronting the enemy with a large number of intruders.

The ALCM is in full production and follow-on operational test and evaluation. Contracts for 729 missiles have been signed and the FY 82 contract for an additional 440 missiles is under review. The first B-52G aircraft modified to carry 12 ALCMs externally attained an alert capability on schedule at Griffiss AFB, NY in September 1981. The next significant milestone will be the achievement of an IOC for a B-52G squadron of 16 aircraft equipped with external ALCMs that is scheduled for December 1982. Procurement funding for ALCM in FY 83 is $646 million for 440 missiles.

Land-Based Missiles. Improving the capability and survivability of our land-based ICBMs is a key element of the President's strategic modernization program. ICBMs are an irreplaceable element of our strategic Triad and possess unique attributes not provided by bombers or SLBMs. These qualities include very high alert rates; high systems reliability; great accuracy; redundant and high confidence command, control and communications; highly responsive targeting flexibility; prompt hard target kill capability; and low operating costs.

M-X. We are requesting funds to complete the development of the M-X, to field a limited number of M-X missiles in existing Minuteman silos by 1986 and to develop a survivable basing scheme for the longer term. The M-X will carry 10 warheads compared to 3 for our newest Minuteman missiles. It will also be much more accurate than the Minuteman, thus enabling it to more effectively destroy hardened Soviet military targets.

The Administration concluded last fall that the previously planned multiple protective shelter basing mode for the M-X would not be survivable against potential Soviet threats and directed us to examine long term alternatives to improve ICBM survivability. These include:

- Deployment of the M-X aboard a new, long endurance, continuous patrol aircraft;
- Deep basing of the M-X several thousand feet underground; and
- Ballistic missile defense, possibly in association with some form of deceptive basing.

In the interim, while a long term survivable deployment mode is developed, the Administration has decided to deploy a minimum of 40 M-X missiles in Minuteman silos. We are examining current Minuteman bases to determine their potential for M-X deployment and plan to select the deployment base by mid-1982.

Though not a lasting solution to growing ICBM vulnerability, initially deploying M-X in silos will complicate and add uncertainty to Soviet attack calculations. More importantly, it is a needed early step toward counterbalancing Soviet hard-target, counterforce capabilities. With greater accuracy and more than three times as many warheads as our newest Minuteman missiles, the M-X will be able to hold at risk high value Soviet targets such as hardened command posts, nuclear storage sites and missile silos.

It will thus confront the Soviets with some of the vulnerability problems that their heavy, accurate SS-18 and SS-19 ICBMs present to us. The Soviets, whose silo-based

ICBMs constitute the bulk of their strategic nuclear capability, would no longer enjoy the advantages of relative invulnerability for a large portion of that force. M-X deployment is likely to encourage the Soviets to seek more survivable basing for their large ICBM force, with consequent increases in cost, and perhaps, reduced operational capability.

While we do not depend on launching ICBMs under attack, the Soviets can not dismiss this possibility. Deploying M-X in existing silos, in conjunction with planned improvements in communications and control systems, could reinforce, in Soviet eyes, the prospect that the US would launch ICBMs under attack. This option will further increase Soviet uncertainties about prospects of carrying out a successful first strike on our forces.

FY 83 funding for M-X development, silo deployment, and production of 9 missiles and follow-on basing studies totals $4.5 billion in then-year dollars. Of this amount, $2.8 billion is earmarked for RDT&E, $1.5 billion for procurement and $207 million for military construction. FY 83 R&D funding includes $310 million for long-term survivable basing options.

Minuteman. Our current Minuteman force, consisting of 550 Minuteman IIIs and 450 Minuteman IIs has been upgraded considerably since the first Minuteman I missiles were deployed nearly two decades ago. Our FY 83 budget request provides for continued improvements in the endurance and effectiveness of these missiles.

Increased endurance will be achieved through the use of lithium batteries to augment existing commercial and standby diesel power at some Minuteman III silos. This Minuteman Extended Survivable Power program will increase the time during which emergency power will be available in Minuteman III silos by a factor of fourteen. We also intend to replace 50 Minuteman IIs with a like number of Minuteman IIIs to help offset the decrease in strategic capabilities resulting from the phase out of the Titan IIs. In addition to demonstrating our resolve to redress the imbalance in US and Soviet nuclear capabilities, this program will alleviate a shortage of Minuteman II flight test vehicles. Finally, Minuteman III accuracy will be improved through modest change to missile hardware and software.

Titan. Our Titan II missiles were deployed in the early 1960s. They have already exceeded their planned operational life and have become increasingly difficult and costly to maintain. We are therefore proceeding with the retirement of Titan IIs, an action we expect to complete by 1987.

The phased retirement schedule permits prudent withdrawal consistent with safety and logistical constraints. It also allows missiles remaining on alert during the phase-out period to remain committed to the SIOP -- continuing deterrent contribution. In the interim, we are continuing to implement procedural and hardware modifications to ensure that active Titan missiles are as safe as possible.

Command, Control, Communications (C^3). Strategic command, control, and communications programs (C^3) consist of systems, equipment, facilities, personnel, and procedures necessary to manage and employ our strategic forces and weapons. Effective deterrence requires a C^3 system which enables the National Command Authorities (NCA) to monitor the nuclear forces reliably and if deterrence fails, to provide the necessary information, command facilities, and communications to prosecute a nuclear war effectively.

Rapid communication between our warning sensors, the NCA and our commanders of nuclear forces is vital to the survival and employment of strategic forces. Our command, control, and communications systems must provide unambiguous and timely warning and attack assessment information to the President or his designated successors and must assure that the NCA can communicate effectively with our strategic forces. Perhaps no portion of our strategic modernization program is as important as upgrading our C^3 systems.

Technology has enabled us to gain better understanding of disruptive effects of nuclear weapons on our command and control communications systems. Our present landline, radio and satellite systems could be seriously disrupted during trans- and post-nuclear attack. We are working with the telephone industry to protect landline systems from effects of electromagnetic pulse from nuclear bursts. The Air Force is upgrading its worldwide high frequency (HF) radio stations with equipment to provide improved coverage and higher power. New state-of-the-art equipment replaces airborne HF radio permitting a building block approach to future improvements known as adaptive HF. We are also adding the Air Force Satellite Communications System in bombers, missile launch control centers, and airborne command posts to ensure highly reliable two-way communication between command centers and the forces.

We are also exploring improved satellite capabilities at frequency ranges which can sustain communications in a jamming environment and a nuclear disturbed atmosphere. The MILSTAR Satellite communication program is designed to fulfill the urgent need for highly jam-resistant and survivable satellite communications for the command and control of new strategic and tactical forces. Strategic bombers, airborne and ground command posts, missile warning and attack sensors and the tactical air control system will use this communications system.

Our VLF/LF improvement program continues with acquisition of higher power transmitters for our airborne command posts, development of miniature VLF/LF receivers for our bomber aircraft, and new signal processors to improve performance in a jamming environment. HF communications technology is used to better employ the entire high frequency spectrum in a nuclear environment.

In sum, we will be undertaking a wide variety of efforts to upgrade our strategic command, control, and communications over the next several years. We are requesting $3.8 billion in FY 83 to begin to build and reconstruct C^3 network to meet our needs in the face of projected enemy threats.

Strategic Defense. Our strategic defenses are designed to provide timely warning and assessment of enemy missile or bomber attack and to defend against Soviet bomber and cruise missile strikes. Timely, reliable warning is required to assure that we can retaliate effectively in a manner appropriate to the character of the enemy attack. Competent atmospheric defenses are necessary to preclude US vulnerability to a precursor bomber attack and to limit the damage that would be inflicted in follow-on bomber strikes.

Atmospheric Defense. Over the past twenty years, the US has significantly reduced forces assigned to atmospheric defense. The Soviet threat, on the other hand, has increased in numbers and in capability in recent years with introduction of the Backfire bomber and improved air-to-surface missiles. Given this growing threat, atmospheric tactical warning and surveillance is required to provide support for intercept operations and assure that retaliatory responses can be made. Our current system has serious deficiencies in providing the desired warning to the NCA under the best conditions.

Atmospheric defense for North America is a cooperative US-Canadian effort. Atmospheric surveillance and warning systems are configured to control access to North American airspace. The surveillance system is composed of ground-based radars in the Distant Early Warning (DEW) Line, the CADIN - Pinetree system in Southern Canada, and the Joint Surveillance System (Federal Aviation Administration and military joint use radars in Alaska, Canada and the continental United States). During periods of crisis, surveillance and airborne command and control of interceptor forces will be provided by the E-3A AWACS aircraft. Fighter interceptor aircraft currently assigned to atmospheric defense missions include F-106s, F-4s and F-15s.

The Air Force has developed a master plan for tactical warning, attack characterization, and air defense and control requirements which has been largely adopted by the Department of Defense. We have also recommended force structures to meet these tasks. For northern surveillance requirements, we propose to upgrade our aging DEW Line radars deployed across Northern Canada. In addition to coverage by the Joint Surveillance System, for peacetime, wide-area surveillance, we plan to deploy long-range OTH-B radars on the East and West coasts. These radars will provide all-altitude coverage and early warning of hostile intruders out to approximately 1800 miles. We are also recommending deployment of a southern-looking Over-the-Horizon-Backscatter (OTH-B) radar to complete North American wide-area surveillance coverage. Finally, the President's strategic modernization program calls for the acquisition of additional E-3A AWACS aircraft for continental air defense. Funding for OTH-B, the enhanced DEW Line, and additional E-3A AWACS in FY 83 is $86.6 million, $131.8 million, and $47.1 million, respectively.

The Air Force plans to eventually convert five active F-106 squadrons to F-15s to improve substantially the capability of our air defense interceptor force. F-15s have a long range, large volume search radar and a look-down, shoot-down capability to complement the wide-area surveillance system. We are examining additional F-15 procurement for both air defense and worldwide air superiority requirements. We are requesting $80.9 million in FY 83 for military construction, O&M and spare parts procurement associated with the deployment of air defense F-15s in our active forces.

Ballistic Missile Warning. The credibility and viability of our national defense policy of nuclear deterrence and escalation control are critically dependent on our ability to provide unambiguous, timely, reliable, survivable, and enduring tactical warning and assessment of an enemy missile attack.

Ballistic missile attack warning and assessment are currently accomplished by space satellite systems, the three Ballistic Missile Early Warning System (BMEWS) sites, the Perimeter Acquisition Radar Attack Characterization System radar, the Eglin AFB FPS-85 radar, the MacDill AFB SLBM radar, and two PAVE PAWS SLBM detection and warning sites.

Several of these systems are being upgraded. Satellite survivability is being improved with the addition of more survivable ground stations. Replacement of the aging Missile Impact Predictor computers at the BMEWS sites in Alaska, Greenland and England continues. We will soon initiate modifications to BMEWS radars at Thule and Fylingsdale which will permit them to track a larger number of objects with considerably increased impact prediction accuracy.

Site surveys for two additional phased array radar sites for the detection of submarine launched ballistic missiles radar have been completed in the southeastern and southwestern US. The deployment of these new PAVE PAWS sites will substantially improve SLBM tactical warning capability and allow us to close two older, less capable radar systems which are becoming increasingly costly to maintain.

Space Defense. We are currently considering steps to improve our space surveillance capabilities that include upgrading existing electro-optical sensor systems and upgrading ground-based SPACETRACK radars to provide more timely and accurate data. In addition, command and control capabilities for space defense are being improved and we are continuing to work on the development of an antisatellite capability.

Antisatellite (ASAT) Activities. As US dependence on satellites in space continues to grow, so does the Soviet threat. The Soviet Union currently has an operational antisatellite system and improved future systems are projected. The current system has the potential to destroy satellites in low Earth orbit.

The US Air Force is continuing development of an ASAT capability as a means both to deter Soviet ASAT use and, if necessary, to destroy Soviet space systems that pose a threat to our forces. The US ASAT weapon is an air launched system consisting of a modified Short Range Attack Missile first stage, an ALTAIR III second stage, and a Miniature Vehicle conventional warhead. In FY 83, $218 million is requested for development and flight testing of this ASAT weapon which will be carried by designated air defense F-15s.

Laser Weapons. The Air Force is continuing an intensive research effort to investigate high energy laser potential from the ground, air and space. In response to congressional direction, DARPA's laser technology research was accelerated in 1978 to investigate directed energy weapon potential, with funding of around $100 million per year. The Air Force is working closely with DARPA, and have increased our research efforts accordingly.

We are requesting FY 83 funding of $95 million for our high energy laser program, which concentrates on airborne laser application, and $41 million for a new space-based laser research program. We recognize the need to have a much sounder base of research and advanced technology in these areas before weapons development decisions can sensibly be made, and are directing our research efforts to that end.

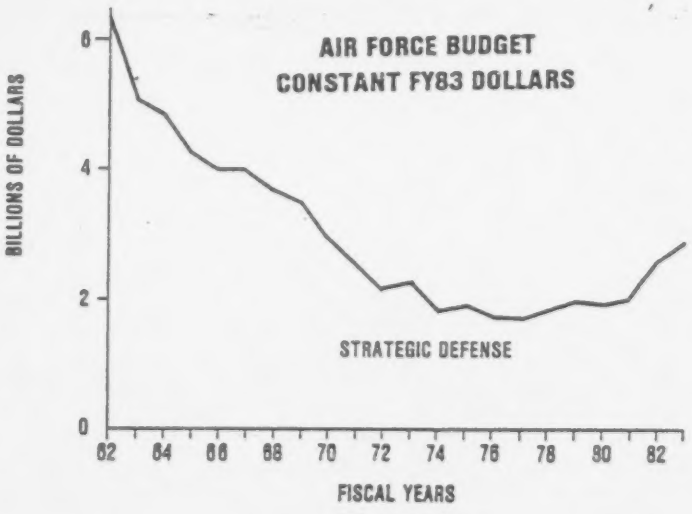

Figure 3.

III. TACTICAL FORCES

The necessity of providing, in concert with our allies, a credible defense against Soviet conventional forces provides the basic yardstick against which our requirements must be measured. Over the last decade Soviet theater warfare capabilities have improved and expanded significantly.

Soviet Force Developments

The Soviets have instituted an awesome modernization of their numerically superior tactical air force. They have transformed their tactical air force from one consisting mainly of limited range, low payload, day fighters into a potent, long-range, tactical air arm with increasing capability to operate in adverse weather. They are producing capable, modern tactical fighters at a rate more than double that of the United States. In Europe, NATO airfields, ports and storage facilities are within striking distance of the modern, longer range and large payload Soviet tactical fighters based in Eastern Europe and the Western Soviet Union.

The mobility and firepower of Soviet ground forces have also undergone substantial improvement. A steady infusion of large numbers of new tanks, infantry fighting vehicles, self-propelled artillery and attack helicopters has greatly increased the offensive power of the Soviet Union. To protect this force the Soviets have fielded an extremely capable air defense system consisting of a large force of highly capable interceptors, air defense artillery and an expanding family of surface-to-air missiles all supported by a linked array of mobile and fixed radars.

Furthermore, the close proximity of large Soviet forces to Western Europe, Southwest Asia and Northwest Asia — regions vital to our interests — provides them interior, protected lines of communication which facilitate their ability to conduct offensive actions. In contrast, our forces based in the continental United States would be compelled, in the event of Soviet aggression, to deploy over intercontinental distances to reach these theaters and reinforce in-place forces.

Requirements

With allied ground forces seriously outnumbered and the Soviets able to pick the time and place of aggression, we must rely heavily upon the firepower and flexibility of airpower to deter and, if necessary, defeat a Soviet attack. Soviet doctrine, force structuring, and training exercises indicate, in the event of European conflict, Warsaw Pact forces would attempt to seize the initiative by mounting a massive air and ground blitzkrieg offensive. We would be confronted with armor-heavy enemy ground forces assaulting allied lines at several points, backed by waves of reinforcing divisions moving toward the front and supported by massive theater wide air strikes.

To maintain a credible deterrent against such Soviet aggression our tactical air forces must be able to do two things: (i) quickly achieve air superiority so that our armies and air forces can fight and be reinforced free from the disruption of enemy air attacks and (ii) provide critical offensive air support to our ground forces.

To accomplish these demanding and simultaneous tasks with our limited force structure we must have highly capable, flexible tactical aircraft able to perform both air-to-air and air-to-ground missions. These aircraft must be capable of flying a high number of effective sorties per aircraft over a sustained period of time and be equipped to fight at night and in adverse weather conditions.

In the air-to-air role our aircraft must be able to detect and destroy the numerically superior, sophisticated Soviet aircraft before they can attack our forces. To do this we require effective, autonomous search radars, a mix of all-aspect missiles, avionics which facilitate weapons employment and superior aircraft performance.

For successful performance of the air-to-ground mission our aircraft must be able to evade and suppress enemy defenses. They must be able to deliver effective munitions in all weather conditions whenever and wherever Soviet forces are conducting offensive operations or are most vulnerable.

The Soviet blitzkrieg relies upon a steady flow of reinforcing formations to the front. Consequently, it is especially vulnerable to an effective air interdiction campaign designed to destroy, disrupt and delay these follow-on echelons. Moreover, in areas such as Southwest Asia, where we do not have a substantial number of forward deployed forces, air interdiction is critical as a timely means to counter a Soviet invasion.

Our requirements are, of course, directly related to Soviet military capabilities. As Soviet combat power increases we must be able to adapt in order to preserve the survivability and effectiveness of our forces. To maintain an effective tactical air arm the Air Force must continue to exploit the technological advantage that this nation possesses. We must continue an aggressive research and development program while also improving our current aircraft through evolutionary improvements and vigorously pursuing initiatives to upgrade the combat readiness and sustainability of our tactical air forces.

Further complicating our warfighting posture is the fact that, by the very nature of our global strategy, we must plan to use our forces to provide tactical air support in more than one theater. We cannot expect to offer a credible deterrent unless we procure highly capable aircraft in the numbers necessary to counter the threat by being able to fight and win an intense air campaign. It is a harsh fact, made clear in World War II and in the Arab-Israeli conflicts, that victory requires substantial numbers of capable aircraft. Even a cursory look at Soviet force structure and production rates makes it clear they have no illusions concerning the high consumption rates of modern warfare.

Since budgetary and infrastructure constraints limit the alternatives available, we must also rely on a mix of aircraft to ensure we are able to meet our requirements across a wide spectrum of mission demands. Furthermore, the United States cannot do the job alone. We will continue to depend heavily on Allied forces to help us maintain a credible and effective defense capability.

Capabilities

The modernization of our tactical forces following the Vietnam conflict has provided us with a highly capable force. However, the continuing growth of the Soviet threat makes it vital that we continue to enhance the capabilities of our tactical air forces.

Tactical Modernization Programs. The F-15 Eagle has proven to be the most effective air superiority fighter in the world today. Superior aerodynamic performance, combined with an avionics suite designed to enhance pilot capability in the air combat environment, and a mix of effective air-to-air weapons will permit the F-15 to retain its advantage well into the 1990s.

In addition to its demonstrated combat effectiveness, the F-15 has proven exceptionally reliable as well. When provided with adequate spare parts during realistic exercises, we have shown the F-15 can maintain high sortie rates. During the Coronet Eagle deployment to Europe, F-15s from the 33rd TFW flew more than 1000 sorties in 20 flying days. For 18 employment flying days these aircraft averaged 3.0 sorties per aircraft, with 99.7 percent of the sorties effective. In 10 days of surge flying, 602 sorties were flown for an average daily sortie rate of 3.3.

With this year's buy of 42 F-15s we continue the modernization of our air superiority forces. The F-15's demonstrated all-weather capability also makes it an ideal replacement for our aging interceptor force.

We need to remedy the serious shortfall in our ground attack capability in night and adverse weather conditions, particularly our ability to attack Soviet second echelon forces and other important targets behind enemy lines. Because of the aircraft's flexibility and growth potential, the Air Force is evaluating a derivative of the F-15 with selected air-to-ground enhancements to meet this requirement. The derivative F-15 is an evolutionary growth in a proven, reliable aircraft. This modification broadens the utility of the F-15 without in any way reducing its outstanding air-to-air capabilities. It would enable us to use this flexible aircraft in both the air-to-air and ground attack role.

The specialized A-10 Thunderbolt II is dedicated to the close air support (CAS) mission. Its armor killing 30mm gatling gun and survivability enable it to provide valuable support to our ground forces. Our planned buy of 20 A-10s in FY 83 completes our planned procurement of this aircraft.

The multi-mission F-16 Fighting Falcon has met or exceeded our expectations. Winning the 1981 Royal Air Force Tactical Bombing competition, the F-16s from the 388th TFW, the Air Force's first F-16 wing, demonstrated the aircraft's exceptional air-to-air and air-to-ground capabilities. Procurement of the F-16 at efficient production rates will provide our theater commanders with a flexible aircraft able to respond to changing tactical situations and requirements. F-16s complement F-15s in air superiority roles and supplement F-111s, F-4s, A-7s and A-10s in ground attack roles.

A derivative of the F-16, incorporating an innovative "cranked arrow" wing design, will be evaluated by the Air Force over the next year. This derivative aircraft will begin flight tests in the summer. It is expected to offer substantial increases in range and payload at a moderate increase in cost over current production models of the F-16. It could also incorporate night and adverse weather capabilities and could be flexibly employed in both air-to-air and air-to-ground missions. We will conduct a comparative evaluation of the derivative F-15 and F-16 to determine which candidate is the best platform to fulfill our requirements for long-range, large-payload attack missions.

The growth potential of F-15s and F-16s provides a solid foundation for continuing force modernization. By modifying both these aircraft we will be able to maintain their margin of superiority into the next decade and avoid the high costs of developing new aircraft. The multinational staged improvement plan makes it possible for the F-16 to accommodate the advances in weapon systems and sensors necessary to meet the mid-to-late 1980s threat. A similar staged improvement plan for the F-15 has also been initiated to upgrade its radar, communications, electronic warfare and armament systems.

By the early 1990s, our current fighter designs (F-15 and F-16) will be 20 years old and will be approaching the limits of feasible modification. Therefore, to meet expected threats and evolving mission needs in the 1990s and beyond we must begin work now on a new aircraft. The new fighter aircraft is the Air Force's program designed to develop a new generation fighter which would eventually replace the F-15 and F-16. The $27.3 million in this year's budget allows for concept exploration and validation work, including initial development of an advanced technology engine.

Night and All Weather Ground Attack. Since day visual weather conditions average only 4.5 hours per day during European winters, we must provide our tactical aircraft with the capability to carry out their missions at night and in weather. Without such a capability we would be in the same situation we faced in December 1944 during the Battle of the Bulge when Allied tactical airpower was not able to support ground units. Currently, only the F-111 has the capability to deliver large payloads effectively at long range, at night and in adverse weather.

Development of the low altitude navigation and targeting infrared system for night (LANTIRN) will assist our F-16 and A-10 aircraft in penetrating enemy defenses at low altitude and in finding and destroying enemy targets at night and under the weather. The LANTIRN system consists of two pods, one for navigation and one for targeting.

Tactical Command, Control, Communications. As in the strategic area, C^3 is vital for successful tactical operations. Developments in Soviet capabilities must be countered by efficient command and control conducted through anti-jam communications. Our communications will benefit greatly by such anti-jam programs as SEEK TALK and the joint tactical information distribution system.

The E-3A Sentry gives our tactical forces significant C^3 capabilities with flexibility vital for worldwide responsibilities. The $698.3 million in this budget permits maintenance of the existing AWACS program, purchase of two aircraft, and provides long lead funding for one additional aircraft. We are also contributing $186.1 million, this year to the NATO AWACS program.

Electronic Combat. It is vital to the survivability and effectiveness of our forces that we be able to use the electromagnetic spectrum while denying it to the enemy. To accomplish this goal, we are placing emphasis on posturing an effective electronic combat (EC) capability to counter, protect, and sustain operations in the enemy threat environment. This capability includes a mix of destructive and disruptive systems to suppress or destroy enemy radars; jammers; command, control and communications nodes; and terminal threat weapon systems.

The F-4G Wild Weasel is an important near term lethal defense suppression system. When equipped with the AGM-88 high speed anti radiation missile (HARM), it will be able to destroy emitting enemy threat radar systems. Longer term combat effectiveness will be enhanced by acquisition of the precision location strike system (PLSS) which will accurately locate and guide weapons and weapon systems against enemy targets in all weather conditions.

In the disruptive category, the EF-111A is a vital part of our effort to electronically counter Soviet early warning, acquisition and ground controlled intercept radars. The last nine of 42 EF-111As are funded in this budget. Other important disruptive programs include the Compass Call EC-130H and the ground mobile C^3CM systems designed to counter the enemy's command, control and communication structure.

Additionally, we are funding acquisition of improved self protection systems and updates for existing systems. We are pursuing major efforts for sustainability to include reprogramming, portable capabilities to test and maintain EC systems, and establishment of an effective logistics and technology base.

Air Base Survivability. The Soviet's growing chemical, air, missile and unconventional attack capabilities increase the vulnerability of our exposed forward air bases. We have established an air base survivability (ABS) program to reduce these vulnerabilities. This program provides a focal point for direction of all actions designed to improve our active and passive defenses.

The Air Force is in the final stages of developing an ABS Master Plan investment strategy. This plan provides current evaluation of the Air Force ABS posture based on present and future threat assessments. It identifies current activities contributing to ABS and depicts their interrelationships. The plan also identifies deficiencies and provides recommendations. Finally the plan will develop a comprehensive, prioritized investment strategy.

To provide defense against fast moving, low flying aircraft for our seven air bases in the UK, we are procuring 32 Rapier fire units and supporting equipment from the British. The UK will provide manning and training with Royal Air Force personnel. The first fire units will be delivered in FY 83 with all 32 units being delivered by FY 86. Our FY 83 program provides $99 million for Rapier.

Chemical Warfare. Soviet forces are well trained and equipped to conduct offensive CW operations. Based upon intelligence information from Afghanistan and Southeast Asia, they are using chemical agents against those who have no defenses or means to retaliate. Our chemical warfare (CW) program is designed to offset these Soviet capabilities by correcting our deficiencies. The importance of this program cannot be overemphasized. Until we have a viable CW capability our theater forces remain at risk.

We are requesting funds for major efforts designed to correct identified deficiencies in our defenses. In addition, we are making major research and development efforts to design more effective and comfortable equipment. These include improved, "breathable" fabrics for overgarments, more sensitive detection devices, improved decontaminating equipment and collective protection systems.

As with nuclear weapons, deterrence of CW requires a viable offensive capability. Our present capability is limited due to a lack of useable munitions and a need for additional persistent agent weapons. We must speed the development and procurement of binary weapons such as the Bigeye chemical spray bomb. Binary weapons, which do not contain toxic substances until the components are mixed, give us both required offensive capability and safe handling characteristics.

Intermediate Nuclear Force Modernization

Continued Soviet deployment of nuclear armed SS-20 missiles and Backfire aircraft has created a marked disparity between NATO and the Warsaw Pact in theater nuclear capability. As a result NATO decided in December 1979 to modernize its intermediate range nuclear forces through deployment in Europe of ground launched cruise missiles (GLCM) and the Pershing II missiles, and, more recently, in a parallel effort, to pursue arms control.

Ground Launched Cruise Missiles. NATO ministers agreed to deploy 464 GLCMs. Construction is under way at Greenham Common in the UK to meet a late 1983 IOC. The governments of Italy and the Federal Republic of Germany have also agreed to GLCM deployments. Technical arrangements dealing with basing and construction of support facilities are being negotiated with various European countries.

The GLCM program presents the opportunity for NATO to demonstrate commitment and resolve by offering a modern, credible deterrent to Soviet actions. Soviet propaganda efforts and increasing European concern over the presence of nuclear weapons underscore the need to make clear the deterrent value of these weapons. As history has shown with chemical munitions, weapons are less likely to be used when no doubt exists about the ability to retaliate in kind. Therefore, until equitable and verifiable methods are found to eliminate such weapons, it is extremely important to demonstrate our willingness to move forward with the GLCM program.

The GLCM system has experienced cost growth and testing program slips. As a result, the program has had a series of in-depth examinations and reviews directed by the Air Force and the Office of the Secretary of Defense. These reviews found GLCM operational concepts generally sound and projected GLCM requirements were validated. Software delivery delays affected the flight test and evaluation program, with the next test flight scheduled for February 1982. Plans are being developed to accommodate the delay and to insure the December 1983 IOC is achieved.

IV. FORCE PROJECTION

The global character of US interests and commitments makes it imperative that we maintain forward deployed forces in many regions and be able to deploy effective combat forces worldwide with great dispatch.

The fact that many of our allies and areas critical to the West are close to the USSR and far from the United States places added demands on our mobility forces. We must cross oceans to reinforce and resupply our forces in Western Europe and the Far East. Moreover, we are 7000 miles from the vital Persian Gulf — the world's oil lifeline — with no forward deployed forces and only limited support facilities in the region, and no assurance of access to en route bases for refueling in time of crisis. These circumstances place a premium on improving our mobility and force projection capabilities.

Airpower is a critical factor in providing this rapid response capability. With their flexibility, long-range, speed and, with aerial refueling, independence of en route bases, air forces can project power anywhere in the world in a matter of hours. Our movements of AWACS to Saudi Arabia, Egypt and Europe during crises in the past year, routine tactical fighter deployments worldwide, and airlift support of overseas exercises all demonstrate our commitment and capability to protect Western interests wherever threatened. In addition to providing fighting power rapidly, deployments of Air Force units can "show-the-flag" and, thus, serve as a stabilizing factor both in peacetime and in crisis situations.

Our ability to get combat forces to a conflict area quickly and to provide responsive support for such forces is critical to limiting a conflict, deterring further aggression and defeating enemy forces. Rapid reinforcement of our forward deployed units by both our active and reserve units is an essential part of our strategy for the defense of Europe and Korea. Rapid force deployment capability is necessary to provide effective deterrence and defense capability in Southwest Asia and other regions.

In light of these demands, there is an urgent need to improve our mobility capabilities. The Congressionally Mandated Mobility Study (CMMS), provided to the Congress last spring, set forth overall US military mobility requirements and evaluated alternative mobility improvements. It recommended a balanced program of airlift, sealift and strategically prepositioned equipment and supplies to enable us to provide timely reinforcement of forward deployed forces and rapid projection of US combat power.

Airlift Deficiencies

A major deficiency in our rapid deployment and reinforcement capability is the shortage of airlift. Though prepositioning and sealift improvements are essential parts of an overall mobility program, airlift is the most responsive and flexible element. Only through airlift can we deploy effective fighting forces to conflict areas throughout the world in the early hours and days that are so critical. The gap between airlift capabilities and requirements is well documented. The CMMS, which tied together numerous studies of airlift requirements and capabilities conducted in the past, concluded that the United States does not have sufficient airlift capability to meet our taskings in the required time. We have a significant shortfall in airlifting both normal and outsize cargo to overseas areas and within overseas theaters.

While we have had deficiencies in airlift capability for some time, recent developments have increased both airlift requirements and the urgency of expanding our capability. Improved Soviet offensive capabilities have decreased warning and, thus, mobilization time, and place a premium on bringing US power to bear quickly. The altered situation in Southwest Asia following the Soviet invasion of Afghanistan and the continued turbulence in that region has placed added demands on our forces to be able to deploy rapidly. Furthermore, Army equipment modernization has increased airlift movement requirements in terms of the tonnage and the number of outsize items associated with each division. Finally, uncertainty about the availability of en route bases and overflight rights, as well as availability of airfields and facilities in the destination areas, has complicated airlift movement of men and equipment.

Current Capabilities

The C-5, which represents about 25 percent of our overall wartime long range airlift capability, is the only aircraft able to carry "outsize" equipment such as tanks, self-propelled artillery, helicopters and communications vans, over intercontinental ranges. About 27 percent of the cargo destined for NATO in the first 15 days of a war is outsize. For a major conflict in Southwest Asia, outsize cargo is about 20 percent of the first 15 day requirement. Over half the total cargo involved in moving an Army mechanized unit is outsize. Yet, we have only 70 operational C-5 aircraft -- far short of our needs.

The C-141 is the backbone of our long range intertheater organic airlift. The 234 operational C-141s represent about 35 percent of wartime intertheater airlift capability. The C-141 can carry oversize (jeeps, rolling stock, helicopters) or bulk (palletized packages) cargo.

The C-130 aircraft is our primary intratheater airlifter. It carries oversize and bulk cargo over short distances. Of the 512 C-130s in the Total Force, 294 are assigned to the Reserve and Air National Guard.

The Civil Reserve Air Fleet (CRAF) is an essential part of our wartime airlift capability. Through contractual agreements with civil carriers, we have arranged for long range cargo and passenger aircraft to augment the organic airlift fleet during contingency deployments. CRAF currently represents 40% of our national capability and provides a relatively low cost lift because we only pay full operating costs for the aircraft when they are used for military purposes in time of crisis or war.

Airlift Improvements Program

Air Force mobility funding totals $4.96 billion in FY 83. The program to decrease the airlift shortfall calls for: increasing the capabilities of existing forces and expanding our airlift forces by acquiring additional KC-10s and procuring C-5Bs.

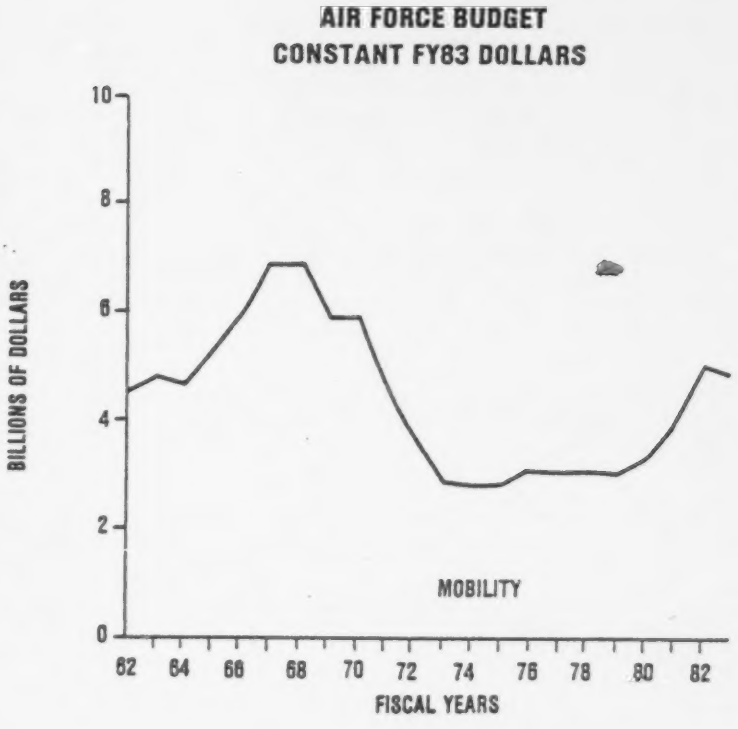

Figure 4.

As shown in figure 4, following the acquisition of the C-5A, Air Force mobility funding dropped considerably during the 1970s. This resulted in shortages of spares and materials handling equipment and an aging airlift force. The growth in FY 81 and 82 reflects increased funding for spares and modification programs to improve the capability and service life of existing aircraft.

Improvements to Existing Aircraft. Our budget requests funds to continue a range of improvements to our existing aircraft. These include: increasing wartime utilization rates of all airlift aircraft by investment in spare parts and higher manning ratios; continuing C-5A wing modification; expanding aerial port capacity; and improving our materials handling capability.

The airlift spares program received significant funding increases in FY 81 and 82. The FY 83 program completes funding for the C-5A wartime utilization rates, and adds significant sustainability for C-141 and C-130 aircraft. Because of two year average production time for spares, however, we will not reach these stock levels until FY 85.

The service life and carrying capability of our C-5A fleet is presently limited by widespread cracking in the wing structure. The wing modification program will remedy this deficiency and will extend aircraft service life by 30,000 hours, thus continuing C-5A useful life well into the 21st century. The wing modification program is on schedule with the first five operational aircraft beginning modification in the current fiscal year. In FY 83, we are requesting $294 million to modify 15 more C-5As and purchase 18 modification kits.

The mobility enhancement program also includes increasing our capability to offload and process cargo on the ground. The $45 million requested for materials handling equipment will help alleviate shortfalls in wartime requirements.

Expanded Airlift Capability. In view of the compelling and urgent need for additional airlift in the near term, we have modified our earlier airlift plans. We now plan to proceed with a combined program to increase our long range airlift capability over the next few years. This program calls for the procurement of 44 additional KC-10s and the acquisition of 50 C-5Bs.

KC-10. The KC-10 is a combined tanker and cargo aircraft that will provide both the long-range air refueling capability that we need for global force deployments and, at the same time, carry an impressive amount of equipment and supplies. Because of its long range and large fuel carrying capability, the KC-10 can operate without reliance on en route basing if need be and, thus, is particularly valuable for worldwide force deployments. In addition, the KC-10 has a larger cargo carrying capability than the C-141B. In procuring additional KC-10s, the Air Force will be able to take advantage of a particularly favorable contract option. Our FY 83 budget requests $829 million for the purchase of 8 KC-10s, spares, and long-lead items.

C-5B. By acquiring C-5Bs we will be able to begin promptly to correct the serious shortfall in our airlift capability and to improve our ability to transport large volume and weight cargo over intercontinental distances. Acquisition of C-5Bs will enhance our ability to reinforce Europe in the early hours and days of conflict and our ability to project effective combat forces rapidly worldwide. With no research and development required and an existing production base, we will be able to begin to field C-5Bs by the middle of this decade, well before a new production aircraft would be available. We have a fixed price offer for the procurement of C-5Bs. Our FY 83 budget requests $860 million for the initial purchase of two aircraft.

Prepositioning

Prepositioning of wartime materials and equipment has been integral to our worldwide strategy for years. It allows us to introduce combat units to an area quickly with the bulk of their equipment and supplies already in the theater. In Europe and the Pacific we maintain war reserve consumables and equipment for both in-place and augmentation units. Prepositioning is vital for a Southwest Asia contingency due to the long distances and austere environment involved. In FY 81 we began maritime prepositioning of munitions, fuel, rations, and construction materials in Southwest Asia. For FY 83, our program will, as negotiations with various countries permit, preposition vehicles, munitions, fuel, water equipment, and portable support facilities, and increase our combat capability in this vital region.

Aerial Refueling

Because of the wide variety and great number of users, the need for combat flexibility over virtually the entire globe, and the growing political restrictions on landing rights and overflight, our aerial refueling needs have increased substantially. All our modern aircraft have air refueling capability.

Our current tanker fleet consists of 615 operational KC-135As. We plan an additional force of 60 operational KC-10s, to provide air refueling and cargo support for long range strategic airlift and tactical deployments.

The KC-135 was originally purchased in the 1960s to support our strategic bombers. Today, our bombers require increased refueling support due to changes in mission profiles and tactics and range degradation resulting from modifications. These requirements will increase further over the next few years due to increased drag caused by the external carriage of air launched cruise missiles (ALCMs).

Over the years, we have come to rely increasingly on aerial refueling for our general purpose forces. Almost all force deployments require air refueling, not only for deploying fighter aircraft, but also for airlift aircraft carrying support equipment and personnel. With aerial refueling we are able to deploy forces anywhere in the world without dependence upon en route bases which, as recent experiences have shown, might not be available. In FY 81, the Air Force deployed 205 fighters non-stop to Europe and 86 to the Middle East and the Pacific by using aerial refueling. And, in Bright Star '82, we flew Army paratroopers directly from Fort Bragg to Egypt, paradropped them into a mock combat zone and then returned non-stop to the US.

We must have a refueling force capable of responding across a wide spectrum of conditions. Our planning calls for increased aerial refueling to support contingencies in Europe, Southwest Asia, and elsewhere. With our limited tanker resources, we would have to divert tanker assets from the strategic mission to support our fighters and transports and accept SIOP degradation at a time when this would be least acceptable.

KC-135R. A cost effective means of providing this badly needed additional capability is to modernize the KC-135 by reengining it with the CFM56. KC-135s, reengined with the CFM56 and designated KC-135Rs, will be able to do the job of one and a half KC-135As and will have a useful life well into the next century. In addition to providing increased offload capability, the KC-135R will provide performance improvements, including much greater engine thrust, increased fuel efficiency and reduced noise and air pollution. Reengining will provide increased operational flexibility since the KC-135R will be able to operate from shorter runways.

Reengined KC-135s will also be 25 percent more fuel efficient. A fleet of KC-135R, would save approximately 110 million gallons of fuel per year, a five year savings of over $715 million (assuming a constant FY 82 fuel cost of $1.30 per gallon). Reengined KC-135s will meet the Federal Aviation Administration regulation for noise and pollution — while the present engines exceed these standards by significant margins.

FY 83 funds will be used to procure between 20 and 25 CFM56 reengining kits which will bring the total on order to between 30 and 35. We plan to buy reengining kits for 300 KC-135s, approximately one-half of the fleet, during the FYDP period. With strong congressional support, the reengining program has been accelerated ahead of its original milestones. The first production aircraft will be modified in February 1982, and the total developmental effort will be completed after flight testing the first production aircraft in mid-1983.

Rapid Deployment Joint Task Force

We have identified several units for deployment in RDJTF contingencies. These include four tactical fighter wings, including two Air National Guard (ANG) fighter squadrons; a Strategic Projection Force (SPF) composed of bombers and supporting tankers; airlift, reconnaissance, air rescue, and combat communications units including one ANG electronic warfare and two ANG reconnaissance squadrons. Air Force Reserve units provide one half of the aircrews and over one third of the maintenance capability for the strategic airlift forces which will move the RDJTF.

Combat readiness and sustained fighting capabilities of these units have been increased by reallocating munitions and spare parts from other Air Force units. Our ability to respond effectively in RDJTF contingencies, however, remains limited by deficiencies in mobility, inadequate access to support facilities in potential conflict areas, and shortages of advanced munitions.

Three programs in our FY 83 budget will help alleviate these shortfalls. The $10 million in the SPF Contingency Support Package funds exercises and procures supplies and equipment to enable the SPF to operate under austere conditions. Secondly, $279 million is requested for facility construction in Southwest Asia for the RDJTF and the SPF. This construction includes improvements to runways, taxiways, parking aprons, and munitions storage areas for airfields in the area. Finally, $110 million is requested for mobility support equipment which supplies deploying units with portable maintenance shelters, electrical generation and distribution equipment, messing, billeting, water purification and distribution equipment, and refueling systems.

Strategic Projection Force (SPF)

The conventional bombing capability of our B-52s represents a powerful element of timely power projection. The SPF has been formed within the Strategic Air Command to bring this capability to bear as a component of the Rapid Deployment Force. It consists of 28 operational B-52Hs and 14 to 18 KC-135 refueling aircraft augmented by appropriate airborne and ground-based reconnaissance, intelligence, and command, control and communications elements.

The capabilities of the SPF were recently demonstrated in Bright Star '82. During this exercise last November, six B-52H SPF aircraft flew a non-stop, round-trip, mission from Minot and Grand Forks AFBs to a target area in Egypt and dropped 81,000 pounds of bombs on time and on target. This was the longest non-stop bombing mission in history, graphically portraying the ability of airpower to respond rapidly and effectively at great distances.

V. READINESS AND SUSTAINABILITY

To make full use of our investments in modern weapon systems and munitions we must make similar investments in readiness and sustainability and thus assure that our forces are ready for combat on short notice and capable of sustained military operations over a considerable period. We must have the proper mix of modern equipment and well trained, dedicated people supported by modern repair facilities, sufficient spare parts, and adequate stocks of effective munitions to achieve such readiness and sustainability.

In our FY 83 budget submission, we have continued to place priority emphasis on improving the combat preparedness and staying power of our forces. This is necessary in view of the significant deficiencies in our present ability to sustain effective combat and the very real possibility that we may be required to use military force to defend our global interests over the next few years.

Our FY 83 funding will enable us to eliminate the backlog of depot purchased equipment maintenance (DPEM), continue progress toward bringing spare parts stocks for our tactical fighters to required levels, continue to improve our inventory of modern munitions and significantly reduce the backlog in base facility maintenance. We will also be able to increase operational flying hours and train more effectively. The Air Force has made significant strides in improving the quality and realism of operational training programs. Initiatives like Red Flag and Dissimilar Air Combat Training have produced large benefits in terms of the readiness of our operational crews. Furthermore, major exercises and numerous deployments of active, Guard, and Reserve units to wartime operating bases have given operations and maintenance personnel realistic experience in the environment in which they would be likely to fight.

Operation and Maintenance (O&M) Funds

O&M funds are a key ingredient of force readiness. These funds train people, buy fuel and supplies, perform depot maintenance, maintain facilities, and pay civilian workers. The O&M share of the FY 83 program is just over 26%, or $20.5 billion, including Air Force Reserve (AFR) and ANG. As shown in Figure 5, that amount is divided among numerous activities in the approximate percentages shown.

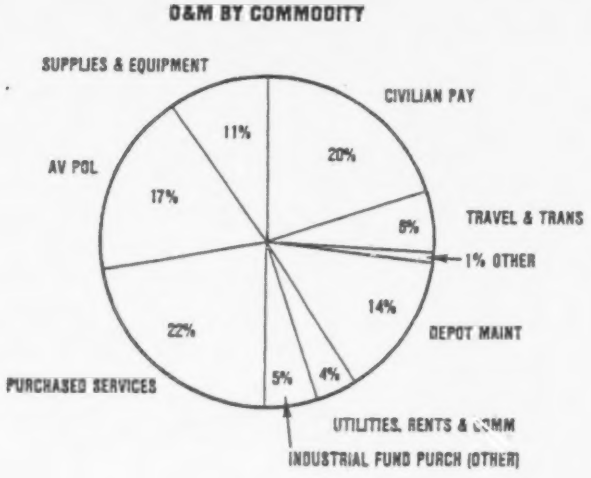

Figure 5.

Because of funding constraints and higher-than-projected inflation there was a decline in real O&M buying power between 1975 and 1980. Our FY 83 budget provides for critically needed real growth in the O&M account, although the level of that growth will, of course, be dependent upon the levels of inflation we experience.

Training

Aircrew training must be rigorous and realistic. Our crews and combat support personnel must be trained adequately to enable them to make full use of their equipment and to sustain planned wartime sortie levels under conditions of high stress and danger. Well trained people are essential to achieve an edge in combat operations.

The flying hour program is the largest of all training programs and contributes the most to readiness. Approximately 36 percent of the O&M budget supports flying operations. The FY 83 program increases flying hours three percent or 99,000 hours above the FY 82 Air Force wide level, which increased 4 percent. The most dramatic improvement is in the tactical program, which increases by 8 percent. These additional hours are needed to support a larger primary aircraft inventory, to train replacement pilots, to support training in new aircraft, and to increase training levels.

Our commitment to aggressive and realistic training will continue. Our crews are training on weapons ranges against simulated enemy defenses, practicing with allied airmen and flying in the environment in which they may fight. Red Flag exercises give crews experience in an environment as realistic as possible in peacetime. During Red Flag missions, our aircrews — including Reserve and ANG units — fly against simulated enemy aircraft and ground-based defenses, and deliver live munitions on mock enemy targets.

In addition, our training program includes deploying active, Guard and Reserve units to their wartime locations overseas where they familiarize themselves with the deployment base, fly in multi-national exercises, and gain experience in the local weather and terrain. This training may mean the difference between winning and losing in the early days of high intensity combat.

These deployments have gone smoothly. In 1980 fighters from active and air reserve units based in the US crossed the ocean 630 times on deployments and, on all but six occasions, the planned numbers of aircraft arrived in place, on time, and ready to fight. In 1981, we made 582 crossings, with only eight late aircraft. Many of these deployments were non-stop, from the units' stateside home bases to the overseas operating locations.

Since we plan to fight as part of a combined multi-service force, joint exercises with the other Services are particularly valuable. Through the JCS Exercise program, we gain experience in deploying and employing forces under joint command and control.

In November and December of 1981, we conducted the largest JCS exercise in 20 years — Bright Star '82. Designed to familiarize our units with unique problems of Southwest Asia operations, the exercise included 450 deployment and redeployment missions by transport aircraft, live ordnance deliveries by B-52s, direct deployment of A-10s and F-16s from CONUS to Egypt, and the paradrop of an Army battalion. Combined fighter training exercises were held with the Egyptian Air Force, with command and control provided by E-3As.

In addition to emphasizing exercises and operational deployments, we must also maintain an adequate pilot training base. Due to the forecast increases in undergraduate pilot training requirements in the mid-1980s and the fact that the aging, operationally deficient T-37 fleet will be numerically inadequate in 1986, we are developing the Next Generation Trainer (NGT) to replace our T-37s.

Logistics Sustainability

Logistics sustainability consists of a myriad of war reserve materiel needed at the outbreak of hostilities to sustain combat until the industrial base can be mobilized to support our forces. Over the past year, logistics requirements have been changed to reflect the judgment that we must be prepared for a prolonged conventional conflict and the consequent need to have sufficient war reserves to stay the course. Three major components of logistics sustainability are aircraft replenishment spares, munitions, and aviation fuel.

Aircraft Replenishment Spares. Adequate funding of replenishment spares is vital to peacetime readiness and wartime sustainability. There are three categories of replenishment spares: Peacetime Operating Stocks (POS), War Readiness Spares Kits/Base Level Self-Sufficiency Spares (WRSK/BLSS), and Other War Reserve Materiel (OWRM). The POS spares support peacetime training and form the baseline of spare parts to which are added stocks needed to support combat operations. WRSK/BLSS spares support initial wartime surge while OWRM spares provide wartime sustainability until mobilized industrial production can satisfy wartime consumption.

This budget continues the emphasis of the past two budgets to correct aircraft spare parts shortages. POS and WRSK/BLSS are fully funded at $2.3 billion and $.4 billion, respectively. OWRM is funded at $102 million, which will buy spares to sustain our C-5, C-141, and C-130 aircraft. While our stocks of spare parts are beginning to show improvement as a result of our priority emphasis over the past two years, production lead times of two years will delay the filling of stocks to desired levels.

Munitions. The wartime effectiveness of modern aircraft will be only as good as the munitions they carry. Our present munitions inventory is inadequate because much of this inventory consists of older, less capable munitions, and our stocks are insufficient to support a high intensity, prolonged war.

Over the past decade our research and development efforts have yielded new generations of modern munitions with much higher effectiveness. These modern munitions increase the capability and the effectiveness of each wartime sortie by destroying more targets while decreasing aircraft and aircrew attrition. During the Vietnam War, for example, we were unable to destroy the Thanh Hoa bridge with unguided bombs despite an intensive bombing effort involving 873 sorties and the loss of 11 aircraft. With the development of laser guided bombs, however, we were able to destroy the bridge in a single mission with no aircraft losses. Similarly, in attacking enemy tanks it would take 175 general purpose bombs to achieve the same results as four Maverick missiles.

The procurement of new munitions will increase our ability to achieve and maintain air superiority, an essential task in our wartime plans. To accomplish this mission, we must engage and destroy enemy air forces both in the air and at their operating bases. Attacking enemy air bases reduces the enemy's ability to generate combat sorties. Our budget request provides funds to improve both our air-to-air and airfield attack munitions.

In FY 83, we plan to add 1300 AIM-7 radar guided and 1920 AIM-9 infrared guided missiles to the air-to-air weapons inventory. We are also developing the Advanced Medium Range Air-to-Air Missile (AMRAAM) to cope with Soviet force improvements. This missile will be an autonomous, all-environment weapon which will provide our fighters with the capability to engage multiple targets, and will increase aircraft survivability due to its high speed and launch-and-leave potential. The FY 83 program continues full scale development of AMRAAM. Advance buy funding is programmed in FY 84 for initial AMRAAM procurement in FY 85.

Current inventory munitions are inadequate for the airfield attack mission. New munitions must be developed and acquired to accomplish this difficult task. As an interim solution, we are buying 350 French Matra Durandals, a 440 lb rocket assisted cratering munition, which can be delivered at low altitude and high speed. Durandal, however, requires target overflight by the delivery aircraft, exposing it to heavy enemy defenses.

The proliferation and increasing capability of Soviet surface-to-air defenses demands that we develop less-vulnerable stand-off munitions. To acquire this capability, we are working jointly with the Navy to develop the Medium Range Air-to-Surface Missile (MRASM), a conventional variant of the AGM-109 Tomahawk cruise missile. The MRASM is designed to allow our aircraft to attack runways from standoff ranges. MRASM funding in FY 83 is $42.7 million.

Gaining air superiority also requires the capability to suppress and destroy enemy surface-to-air threats to our aircraft. We are developing the Conventional Standoff Weapon (CSW), a standoff air launched missile, to work with the Precision Location Strike System for this purpose. CSW funding in FY 83 is $38.9 million. In the near term, the F-4G is the only dedicated lethal defense suppression system in our inventory. The High Speed Anti-Radiation Missile (HARM) is its primary weapon, and we plan to procure 206 additional HARM missiles in FY 83.

We are also improving our inventory of air-to-ground munitions, especially anti-armor weapons. These weapons include point kill weapons like the 30mm gun pod and Imaging Infrared Maverick missile; area weapons such as the Anti-armor Cluster Munition (ACM) and Wasp; and anti-armor mines such as Gator and Extended Range Anti-armor Mine (ERAM). Our effectiveness in attacking hardened pinpoint targets will increase with procurement of additional laser guided bombs and the GBU-15.

Munitions shortfalls require more time to correct than spares due to the limited production base and the time required to phase-in newly developed munitions. Overall, munitions funding will increase at an average of 66% per year beginning in FY 83. We have budgeted $1.6 billion in FY 83 on this effort and over the FYDP will invest $19.9 billion to improve our munitions stocks. This growth permits building the inventory of new weapons during the FYDP at a rate consistent with production capacity and inventory objectives, while maintaining a "warm" production base where possible.

Aviation Fuel. The FY 83 program fully funds aviation fuel for our peacetime flying hour program. Beginning in FY 83, the Air Force will be responsible for funding War Reserve Materiel (WRM) aviation fuel only at base level; the Defense Logistics Agency (DLA) will be responsible for funding wholesale WRM stocks for all Services. We are requesting $28 million in FY 83 to fill new base level WRM storage. DLA funding in FY 83 will procure approximately three million additional barrels of WRM fuel. A substantial shortfall in WRM stocks will persist until FY 87.

Wartime Medical Support

The Air Force medical capability which currently exists in Europe and in the Pacific was developed under the now outmoded assumption that air bases would sustain relatively few casualties during wartime. Analyses of the threat to air bases in recent years have clearly shown that our medical facilities in overseas areas, which serve us well in peacetime, will not be sufficient for the medical workload during wartime.

Because the Air Force peak casualty load is expected during the first 30 days of a conflict, the capability to provide medical care must be available in the theater when hostilities begin. With current limitations, wounded patients would suffer a 25% fatality rate, compared with 3% in Vietnam and Korea, and 5% during World War II. To provide this capability, prepositioning of medical materiel in the theater is essential.

In addition to wartime medical support in Europe, we are working to provide medical capability in the Pacific and for the RDJTF. For FY 83, an additional four 500-bed contingency hospitals, one 250-bed contingency hospital, two 250-bed aeromedical staging facilities, 13 second-echelon (emergency treatment) units, and 18 mobile surgical suites are programmed.

Defense-Wide Command, Control, and Communications Support

To make full use of our combat potential, we must integrate individual weapons systems into an effective force. This force coordination depends on secure, survivable, effective C^3 systems. The Defense-wide C^3 system includes programs and capabilities aimed at providing command and control, logistical, intelligence, navigational, and other support communications to a myriad of activities and operations in peacetime and wartime. It does not include systems dedicated to specific warfare missions.

Key programs and their FY 83 funding levels include:

- Common User Terrestrial Communications Program ($318.5 million), provides Air Force support for the operation and maintenance, upgrade and extension of the Defense Communications System worldwide;
- Common User Satellite Communications Program ($381.8 million), develops and purchases in FY 83 two Defense Satellite Communications System (DSCS) III satellites, with associated earth terminals;
- Base/Support Communications ($68.2 million), includes telephone switches, replacement radio systems, and telecommunications center equipment; and
- Communications Security Program ($164.5 million), develops and purchases telecommunications encryption devices for over 400 separate defense-wide programs.

While we have made significant progress in improving our combat preparedness, our shortfalls cannot be corrected overnight. We need to continue to devote special attention to readiness and sustainability programs over the coming years to eliminate the existing backlog of unfulfilled requirements and ensure that the new systems we field are adequately supported.

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VI. SPACE OPERATIONS

Space systems are an integral part of US military capabilities. Our current satellites provide essential surveillance and weather information and serve as a critical element of our command, control and communications systems. The dawning of the era of the Space Transportation System, commonly known as the Space Shuttle, portends an even greater utilization of space for support of military operations. During this period of rapid evolution in military space systems, both the US and Soviet Union are increasing their reliance on satellite support and the potential for conflict in space is growing. Thus, the vulnerability of US space systems and our launch capabilities is of concern and receiving urgent attention. We must develop more survivable space systems and assure ourselves continued access to space.

We are embarked on a broad program to improve our present satellite systems and introduce new capabilities. These include: the NAVSTAR Global Positioning System (GPS), which will allow accurate, common grid navigation in all weather conditions to worldwide users; the Integrated Operational NUDET Detection System (IONDS), which enhances damage and strike assessment, and strategic force management by providing accurate global detection and reporting of nuclear detonation; and the Defense Satellite Communication System III (DSCS III), which improves communication support by providing more capacity, security, and jam resistance.

Space Transportation System

The Space Transportation System (STS) is a national program serving space needs of our government as well as commercial and foreign users. While the National Aeronautics and Space Administration (NASA) is responsible for Shuttle development and operations, the Air Force is DOD executive agent for military Shuttle application. This includes development and operation of the inertial upper stage, building and operating the West Coast launch site at Vandenberg AFB, and developing capabilities necessary to transition DOD payloads to the STS.

Operational planning for Air Force use of the Shuttle includes eventual transition of virtually all national security spacecraft from their current, expendable launch vehicles to the Shuttle. To ensure that critical DOD missions are launched when needed, a limited number of backup expendable launch vehicles will be acquired to hedge against the possibility of Shuttle delays or groundings.

A contingent of DOD personnel is currently in training at the Johnson Space Center (JSC), and will eventually form the cadre for the Consolidated Space Operations Center. To assure smooth integration of military operations in the NASA Mission Control Center, we will assign Air Force personnel to key positions to manage high priority DOD missions.

Air Force funding for STS is $581 million in FY 83. Funding for operation and maintenance at Vandenberg AFB, inertial upper stage procurement and operations, and Orbiter flight charges totals $353 million in FY 83. This includes procurement of 14 upper stages and funds one Shuttle flight.

Consolidated Space Operations Center

The Consolidated Space Operations Center (CSOC), to be built in Colorado Springs, will combine satellite control capabilities and DOD Shuttle operations in a single facility. It will provide increased capacity and redundant control capability in light of the vulnerability and limited capability of the current Satellite Test Center. Shuttle control activity at the CSOC will accommodate the planned increases in use of the Space Shuttle in support of DOD missions. The Shuttle control facility at NASA's Johnson Space Center does not meet all DOD requirements for planning and conducting national security missions.

The CSOC is a central element in the ongoing efforts to develop space systems and a support structure that are reliable and efficient in peacetime and more survivable in conflict. The FY 83 CSOC program includes $32.1 million to continue design and development, $20.7 million for system procurement, and $67.7 million for construction of the first facilities.

VII. MANPOWER, PERSONNEL, AND INSTALLATIONS

Ultimately, the actual combat capability, and thus the deterrent value of the Air Force, depends on having adequate numbers of high quality, motivated and technically competent people.

Manpower Requirements

We are continuing the growth of our active Air Force strength which we began in FY 81. These increases are necessary to support, operate, maintain, and train for modernization of our tactical forces, and for new weapon systems.

Readiness initiatives to support increased wartime equipment, munitions stocks and expanded response support are also provided in our FY 83 manpower requirements. We are increasing security and protection of nuclear weapons and are improving maintenance of the physical plant at our bases. These military increases are partially offset by reductions associated with the retirement of Titan missiles and some B-52 bombers. The decrease in our civilian work force is primarily the result of reductions to meet OSD/OMB civilian ceiling constraints.

An important factor in determining our manpower requirements is the need to have sufficient military and civilian personnel in peacetime with the proper mix of skills and experience both to accomplish peacetime training and to meet wartime combat requirements. The manpower requested in the FY 83 budget is the result of a rigorous prioritization of scarce resources; it still falls short of needed levels in various skills and specialties, particularly in our civilian work force. These shortfalls are a matter of concern and we will work with Congress to resolve them.

All Volunteer Force

Thanks to the strong congressional support in the past two years, we are meeting most of our recruiting and retention goals. However, the situation remains fragile and can easily reverse. While our present manning forecasts are much more promising than they were in previous years, shortages in critical areas persist. Specifically, we are undermanned in pilots, navigators, engineers, physicians in critical specialties and skilled non-commissioned officers. An upturn in the economy or a lessening of congressional support would further exacerbate the problem.

To meet our future manpower requirements, we need to continue to attract and retain high quality volunteers. The task will not be easy. Congress will continue to perform a critical role by providing resources and influencing public attitudes toward national defense and the opportunities the military offers young people. This support is fundamental to maintaining the effectiveness, dignity and status of the armed forces.

Retention and Recruitment. Retention of our high quality, trained and experienced people remains our top priority. It is the key to Air Force readiness. As we expand the force in the 1980s, extraordinary retention will be needed to close the experience gaps that developed in the late 1970s. Additionally, we must be ready on a continuing basis since lengthy flying and technical training requirements preclude all but a limited force expansion in crisis situations. We can no longer rely on time to get ready. Our emphasis on compensation initiatives, retention, and recall programs are reflections of this need.

As we look toward the mid-1980s, we will confront serious challenges in meeting our manpower goals. In FY 83 we need 81,300 enlisted accessions, 6300 (8.4%) more than

programmed in FY 82. Line officer entries for Officer Training School will increase by 1200 or 47 percent over FY 82. Further, the number of 18 year olds will decrease 14 percent by 1986, and by 1992 the population of 18 year olds will have declined by 22 percent. Competition from the private sector will hurt our ability to attract and retain quality, skilled people, particularly those in the technically-oriented fields most critical to Air Force needs.

Military Compensation. One of the key factors contributing to the dramatic improvements in recruiting and retention was the October 1981 military pay raise. For the first time in a decade, military members saw their pay essentially restored to the relative level of comparability with the private sector as had existed at the advent of the All Volunteer Force. To continue the positive recruiting and retention impact, we must act quickly and decisively to implement a predictable, visible, easily understood, stable pay adjustment mechanism and assure military members that their pay will continue to bear a reasonable relationship to pay in the private sector.

In addition, while the military compensation system is founded on providing military members a reasonable standard of living, it is also designed to help instill vital institutional values — cohesiveness, esprit de corps, and dedication to the mission above self — which are essential in military organizations. Since our mission is to be prepared to fight and win wars, our compensation system may necessarily include features different from those normally found in the private sector; e.g., housing and food allowances, stables retirement system, medical care, etc. The current pay and allowances system with its unique system of institutional supports has been tested in peace and war; it works esceptionally well when allowed to function as designed, and it should be continued.

Permanent Change of Station (PCS) Reimbursements. A major factor affecting retention is the inadequate reimbursement of members for costs they incur with moving from one base to another. What used to be a routine event, often looked forward to as a new, exciting adventure, has become a major career decision for many of our people becuase of the significant out-of-pocket expenses involved in relocation. The impact of this problem is being strongly felt in retention, where a recent survey showed that nearly one in four eligible service members would retire in lieu of any move.

Ironically, military people, whose only choice is to accept transfers or leave the service, must absorb these financial penalties and incur significant reductions in their standard of living as a condition of service. In 1979, we found service members spent over $1 billion of their own money paying for government directed moves. The typical staff sergeant moving in 1980 paid $1250 out of his own pocket — more than his entire year's pay raise — to cover costs not reimbursed by the government.

In December 1980, the GAO highlighted the serious inequities and inadequacies of military travel reimbursements and urged the DOD and Congress to take immediate steps to rectify the situation. In documenting their case, the GAO noted that a federal civilian employee could receive up to $4300 (excluding homeownership costs) more than a comparable military member for a move of only 600 miles. On a voluntary cross-country move, the federal civilian employee could receive over $13,300 in reimbursements, while military members making the same move would receive less than $2,200, even after all of the FY 81 and 82 improvements are added.

Congress and the Department of Defense have done several things to improve this situation in the past year, and this budget contains further improvements; however, much more needs to be done. A major setback occurred during final action on the FY 82 DOD

Appropriations Act when the reimbursement provided to enlisted members for temporary duty or permanent change of station orders was arbitrarily reduced by $4.50 per day, further reducing the already inadequate travel reimbursements. Reversal of this decision, funding for the new permanent change of station authorities enacted last year, approval of the requested new initiatives for increased mileage allowances for members and dependents, and higher household goods weight allowances must be accomplished or we will continue losing the experienced people we most need to keep.

Military Retirement Program. Another critical element in the retention equation is the military retirement system. In a recent survey, Air Force members indicated the single most important factor in career decisions was the retirement program. Even rated officers ranked "chance to fly" as distinctly second in importance.

Despite its significant influence on career retention, the retirement program has come under repeated attack. Although no major restructuring of the retirement system has occurred, several changes have been made which substantially erode the value of the retirement system. These changes included elimination of the semiannual adjustment procedures, institution of a high-three averaging technique for new members, and modification of the method used to calculate the service credit multiplier.

In recent months, additional proposals have been offered that would further degrade the system. These proposals have heightened member apprehension. These changes, if enacted, would abrogate an Administration commitment to oppose changes to the retirement system that would adversely affect members presently on active duty, reinforce the perception that retired pay is fair game for continual change and do irreparable damage to the retirement program as a retention incentive.

In the final analysis, because the Services are still suffering from shortages of skilled officers and enlisted members in critical combat, operational and sortie generating skills, we can ill-afford to weaken the retention gains now accruing from the compensation improvements of 1980 and 1981. To preserve the integrity of the retirement system and leadership credibility, changes to the retirement system should be predicated on valid personnel management and force structure requirements and should "grandfather" those currently retired or now on active duty.

Quality of Life. The profession of arms places unique demands on its people and families. Terms of enlistment, extended tours abroad, 24 hour availability, frequent moves, family separation and compliance with military standards, discipline and law are institutional demands which are an integral part of the military's prime mission — combat operations.

Service in the military is not predicated on a formal written contract and rules of negotiation (e.g., union grievance, arbitration) as in the civilian sector. The military member accepts, as a condition of service, that the institution will provide for job and financial security, family needs and assure that living conditions are reasonably comparable to civilian life.

The military services provide for these needs through commissaries, exchanges, housing, dining halls, medical and dental care and retainer pay in the form of retirement entitlements. Experience has shown that any attempt to reduce or eliminate these institutional programs has a severe, detrimental impact on recruiting, retention, and readiness, and undermines those values which we know from experience are essential for success in battle. The Air Force must demonstrate that our people's quality of life needs will be taken care of so they can dedicate full attention to mission requirements.

Educational Incentives Program. Education has historically been a part of the institutional support structure and one of the major incentives for enlistment and retention of quality recruits. A well designed, effective education program could pay for itself by appealing to high quality people, fostering retention and, thereby reducing personnel replacement costs and improving experience and readiness.

Unfortunately, there now exists no effective education incentives program to meet the difficult recruiting and retention challenges. The Veterans' Educational Assistance Program (VEAP) has, by its contributory nature and low benefit, proven to be a poor recruiting incentive. After five years under VEAP, only 6 percent of Air Force eligibles are participating, despite concerted outreach efforts.

The Air Force supports a new effective educational incentives program designed to help us meet our skilled, experienced manpower requirements.

Health Benefits. Health care is a major factor in the career decisions of many Air Force members. Serious deficiencies in our present program affect both our wartime readiness posture and the peacetime morale of Air Force people. Dependent dental care has become an important element in private sector compensation packages, and a dependent dental care program is essential if the military health care system is to continue as an effective recruiting and retention incentive. In an effort to undergird the incentive value of military health care and overcome one of its greatest deficiencies, DOD is developing dependent dental care legislation for your consideration during this session. Correcting health care deficiencies during peacetime enhances our wartime capability, just as meeting wartime medical readiness manpower requirements will, in most cases, significantly improve peacetime access to health care for all beneficiaries. Improving our peacetime capability also saves Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) dollars, since corresponding care in military treatment facilities can be provided at lower cost.

Specifically, we seek to expand our construction program to provide more adequate hospitals and clinics. We seek to increase our support staffs so that health care providers can be used more effectively.

AF Families. The families of Air Force people face demands not routinely associated with civilian life. These include frequent moves, repeated separations, long and unusual hours and hazardous missions. Most Air Force families are coping well.

Studies show that the attitudes of family members and their satisfaction with Air Force life are major factors in career decisions and member attitude, morale, and productivity. Recognizing this the Air Force is now opening base-level Family Support Centers to provide centralized, one-stop service to family members. Areas in which these centers will be involved include information, referral and coordination of family service providers and resources; PCS relocation assistance; spouse employment information, aid for families in crisis, support during family separation, financial management education; programs for special needs families; and family development education.

Four prototype Centers began operation in late 1981. This year's budget includes twelve additional Centers, with the program expanding by 25 per year thereafter. If ongoing evaluation confirms that this program is effective, the Air Force will open Centers at 124 major installations by FY 87.

Executive Level Pay Cap. The recent legislative action concerning executive level pay is a welcome step. Reducing the severe impact of inflation will enhance the motivation and retention of executive level personnel. In addition, it should help attract qualified replacements for the large number of critically important top management positions which previously had remained vacant. However, more needs to be done.

It is vitally important to restore executive level pay integrity. In the interest of fairness to the individual and for the good of the institution there must be realistic compensation differentiation proportional to position and responsibility. This principle must be applied throughout the federal government — to both civilian and military personnel.

General Officer Reduction. The Department of Defense has introduced an initiative to postpone, until FY 83, the requirement to reduce the authorizations for flag and general officers from 1119 to 1073. The Air Force believes any reductions should be deferred pending enactment of comprehensive general and flag officer legislation.

Installations

The Air Force is unique among the military services because we plan to fight from the bases we operate in peacetime. Since 1960 we have reduced our base structure by 47%, from 253 to 133 major installations. The result is a streamlined, efficient, and responsive base structure. Further reduction would not be prudent since it would eliminate the minimum flexibility necessary to support future weapon systems and contingencies. We do not anticipate any major increase in this structure in the future, although we must expand slightly to accommodate the GLCM in Europe.

Now, during the decade of the 80s, we must modernize the facilities on our bases to bring them up to a level consistent with the needs of our modern weapon systems and the people who operate and support those systems. This is essential to readiness and sustainability. We cannot operate and maintain our weapon systems at peak effectiveness from inadequate facilities. We cannot recruit and retain quality personnel if we cannot offer them quality facilities in which to live and work. Our FY 83 request for $5.3 billion supports our three key facility programs: Real Property Maintenance, Military Construction, and Military Family Housing.

The replacement value of the Air Force physical plant is $92 billion in constant FY 81 dollars. The average age of our facilities is 26-30 years, with 60% of them greater than 25 years old. This is the age when deterioration accelerates, especially if the facilities were constructed for short-term support of a war effort as many of ours were. The design life of many components of our facilities has been exhausted at the 25-year point and major expenditures are required for maintenance and repair or replacement. We can no longer afford to "patch" what we have and make do for another year.

Real Property Maintenance Activities (RPMA). RPMA include maintenance, repair, and minor alteration of existing facilities and provision of utilities and contract services in support of those facilities. Our budget to accomplish these activities is broken down into six categories:

	$ Millions		
	FY 81	FY 82	FY 83
Projects by contract	415.2	563.5	474.8
Supplies	252.5	232.9	260.6
Utilities	459.8	544.0	542.6
Contractual Services	247.1	284.2	294.3
Civilian Personnel	504.6	508.8	547.7
Other	106.9	109.8	122.6
Total	1986.1	2243.2	2242.6

Approximately 13% of Air Force O&M is spent for RPMA; however, about 80% of the RPMA budget is fixed — in the sense that it goes toward funding our "must pay" bills, those that cannot be reduced significantly in the short term against a given mission capability. Thus facility projects by contract, our major controllable program, has been impacted considerably since 1975, resulting in a growing backlog of maintenance and repair (BMAR). We have reversed this trend, and we are projecting in FY 82 the first decrease in the BMAR since 1975.

Based on known requirements and given inflation rates, our BMAR will fall below the $300 million ceiling mandated by Congress by FY 83. However, this plateau represents a considerable shortfall over the required manageable level which is less than $100 million. Our FY 83 request is essential for maintaining our progress towards this manageable level.

Military Construction Program (MCP). The MCP provides new facilities to support new missions and replacement facilities to support existing missions. Our MCP request is broken down into five categories based on the function supported.

	$ Millions		
	FY 81	FY 82	FY 83
Systems Acquisition	434.4	430.4	769.1
Readiness	110.0	374.6	403.5
Quality of Life	98.7	228.5	279.1
Upgrading the Workplace	99.8	171.8	394.8
Special Milcon	194.3	424.9	235.3
Total	937.2	1630.2	2081.8

The systems acquisition category contains major investments in support of new systems such as the M-X missile, ALCM, GLCM, STS, CSOC and the Aeropropulsion Test Facility.

Systems acquisition in FY 83 includes an increment of $42 million for the Aeropropulsion Systems Test Facility (ASTF) — a key national asset. We recognize the severity of the cost growth problem associated with this project, and we are applying extraordinary management attention to insure that no further growth occurs.

Also in this category are facilities for the Space Transportation System — a national program developed by NASA. Our critical need for timely, defense-related space missions dictated that we construct facilities at Vandenberg AFB concurrently with NASA development of the Shuttle itself. This concurrency has resulted in large cost overruns for planned facilities and additional facility requirements unforeseen when the program was originated. Our FY 83 request for $82.2 million funds identified overruns and additional requirements.

A third key element of this category is $85.4 million for facilities in support of GLCM in Europe. These facilities are must-buy items to meet our initial operational capability commitment to NATO.

The readiness category includes beddown facilities for the RDJTF and various operational facilities in Europe and the Pacific such as airfield pavements, munitions storage and fuel storage.

It would take unprecedented military measures to repel a Warsaw Pact invasion of Europe. To generate the necessary air effort we would have to deploy a significant portion of our CONUS based tactical air units to Europe. However, our existing airfields in Europe would be unable to accommodate the necessary numbers of reinforcement aircraft and the cost of constructing more bases is prohibitive. Without additional airfields our ability to wage conventional war in Europe would be in doubt.

Fortunately, our European allies have agreed to allow joint use in wartime of their airfields, including shops, dining halls, warehouses and dorms. However, since these Collocated Operating Bases (COBs) are not sized for additional aircraft, our program provides for the necessary added fuel and munitions storage and expanded dispersal pavement. At this time only 6 of 73 identified COBs have these minimum essential facilities (MEF).

The readiness category for FY 83 includes $28.6 million requested to prefinance our COB MEF program. To date, the Air Force has recouped from NATO about $190 million of the nearly $382 million previously prefinanced. We are not satisfied with this recoupment rate and are continuously striving to recoup more. The facilities to be constructed at the COBs, coupled with the facilities we expect to realize from NATO infrastructure, represent the absolute minimum we must have in order to beddown our reinforcement aircraft effectively in case of European mobilization.

The last three categories — quality of life, upgrading the workplace, and special military construction — contain the majority of the facilities where our people live, work, and play such as dorms, maintenance shops, and gymnasiums. Since 1975, sufficient funds have not been available for these categories after higher priority system acquisition and readiness projects have been satisfied. A $7.5 billion backlog of projects developed. Our facility modernization initiative, begun in 1982 and continued in 1983, reverses this trend. Through this initiative we will reduce our backlog of modernization projects to a manageable level of $2.0 billion by 1988.

Military Family Housing. Underfunding of the military family housing account during the late 1970s and new mission activations, principally in Europe, left the Air Force with huge backlogs of maintenance, improvement, and new construction. These backlogs adversely affect the living conditions of our people. Our budget through the 1980s addresses this problem.

	$ Millions		
	FY 81	FY 82	FY 83
Construction	34	39	100
Improvements	33	60	79
Leasing	35	36	54
Operations	272	296	341
Maintenance	250	297	357
Debt Payment	12	9	7
Total	636	737	938

Key initiatives include the elimination of the improvements backlog by FY 89, the reduction of the maintenance backlog to an acceptable level by FY 89 and about a 50 percent reduction in the 20,000-unit deficit of new housing by FY 89. A combination of improvement and maintenance monies is used to modernize the aging (most 25 years or older) inventory of 142,000 houses. Improvements include amenities normally found in private housing. Modernization of existing units is necessary to remain competitive in the job market as we continue the all volunteer force. At present too many of our people are unsuitably housed in private sector housing, especially overseas. This has an adverse impact upon force morale and retainability which subsequently adversely impacts force readiness.

VIII. MANAGEMENT INITIATIVES

We are firmly committed to the most cost-effective use of every defense dollar. This is due not only to the increasing pressure for better management of all governmental activities, but also because our share of the Gross National Product has declined drastically from the early 1950s. Although our tasks have increased in the more dangerous world in which we find ourselves, our share of the nation's resources has declined.

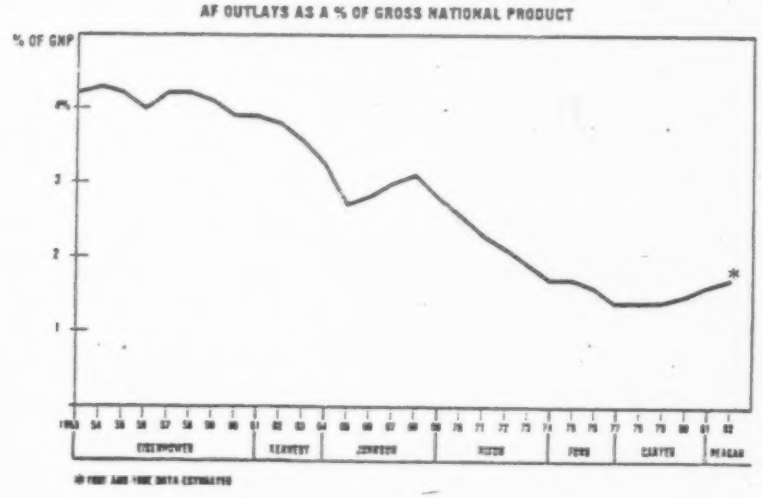

Figure 6.

In support of the Administration's efforts to enhance productivity and realize greater economies and efficiencies in defense operations, the Air Force has undertaken a range of initiatives under the Integrity and Management Improvement Program. Emphasis from the top down has been placed on these actions as a means of ensuring that the best use is made of every defense dollar. Results have been gratifying, with over one billion dollars in savings identified in FY 81 over a wide range of procurement, investment, engineering, and day-to-day activities.

Integrity and Management Improvement Program

Our overall goal is to produce the most effective combat ready force possible. We realize an organization the size of the Air Force requires intensive daily management effort to conduct business efficiently. We support the Administration's goals for greater economy and efficiency.

Aerospace defense, by its very nature, is a high technology endeavor. It is research and development intensive. To ensure we can meet future threats, we often work on the leading edge of technology, thus making accurate cost predictions particularly difficult.

Because of the importance of effective, aggressive, and economical programs, we recently began the Integrity and Management Improvement Program, aimed at those targets. This program will serve as an umbrella for many existing oversight, cost awareness, and incentive programs, and will add new management, emphasis and cross feed to obtain efficiencies at all levels of the Air Force.

It covers five major segments: (i) fraud, waste, and abuse, (ii) productivity program, (iii) economies and efficiencies program, (iv) general management initiatives, and (v) acquisition improvement.

Fraud, Waste and Abuse (FWA). Using our audit, investigative, and inspection resources as tools, we have concentrated our efforts on prevention and detection of FWA. This is a comprehensive compaign involving the Air Force Inspector General, Air Force Audit Agency, and the Air Force Office of Special Investigations, who will work in concert collecting data to track FWA investigations.

To provide an open channel for anyone observing instances of FWA, the FWA hotline was established in August of 1981. Thus, potential cases can be brought to the attention of Air Force leadership and investigative agencies quickly and with a minimum of effort by observers of FWA.

Productivity Program. We have many productivity-related programs which increase our efficiency and save money. Productivity plans by major commands and bases set effectiveness and efficiency goals. Formal programs provide alternative funding and individual rewards to those developing and applying innovations.

Specific programs, and the life cycle savings from FY 81 initiatives, include Productivity Investment Funding which will save us more than $39 million; the Fast Payback Capital Investment Program, which is saving us over $30 million; the Suggestion Program, which has saved $107 million; the Productivity, Reliability, Availability and Maintainability (PRAM) Program effort, saving us over $409 million; and the Value Engineering program, which saved $390 million in FY 81 alone. Much of these savings come through cost avoidance.

Economies and Efficiencies Program. This activity serves as a catalyst for collection, verification, crossfeed, and publicity. Drawing from activities at all levels, we have compiled a data base of suggestions, new methods, better procedures, and ideas that have paid off somewhere in the Air Force. These economies and efficiencies are publicized, and crossfed through the Air Force Cost and Management Analysis office network to field commanders and managers. Savings from this program will exceed $37 million on four depot-level activities alone.

General Management Initiatives. While each of the other program segments is relatively specialized in nature, our general management initiatives provide a central framework dedicated to overall management and system improvement. Some of the programs aimed at economy or efficiency include our "Total Force" policy, reengining the KC-135, development of fighter aircraft which are more fuel efficient than their predecessors, and the fuel savings advisory system (FSAS).

One of our best economies results from the "Total Force" policy. The Air National Guard and Air Force Reserve represent one of the most cost effective investments. They have a pool of experienced personnel able to maintain their combat proficiency while participating on a part-time basis. These units provide a significant share of our overall forces. (See Table B for contributions of Air Reserve Forces to Total Force.)

In 1973, the Air Force used 131 million barrels of aviation fuel. By 1980, we had reduced consumption by 34%. The program to reengine the KC-135 tanker will decrease its fuel usage by 25%, a savings of more than 110 million gallons of jet fuel annually. Our newer fighters, the F-15, the F-16 and the A-10, use respectively, 13%, 57% and 66% less fuel than the older F-4.

Additional fuel savings will result from installation of the FSAS aboard KC-135 aircraft. Seventeen RC-135s now have operational FSAS providing performance information to the flight crew so they can reduce fuel consumption through better engine power settings and aircraft configuration. An overall fuel savings of 3% is estimated. FSAS will be installed on the C-5 and C-141 fleets with an additional estimated fuel savings of 3 to 4%.

Acquisition Management. As part of the overall DOD program to improve the weapon system acquisition process, the Air Force has developed specific actions which will result in significant savings in new weapon systems. These actions are in four main categories: reducing acquisition costs, shortening acquisition time, improving selection and management process, and improving support and readiness.

Multi-year contracts are one of the major efforts in this area. These contracts produce direct and related savings in contract administration because they avoid yearly contractual processes and retain contractors and quality control procedures over several years.

Examples of multi-year contracts and their related savings include the F-16, Tropo Scatter Radio, and Defense Meteorological Satellite programs. In the case of the F-16, we estimate saving $259.5 million over a four-year period beginning in 1982. The radio contract has estimated savings of $18.7 million beginning in 1981. In the Defense Meteorological Satellite program, we will save $49.3 million through multi-year procurement of four satellites and primary sensor units beginning in FY 83. This multi-year approach includes full funding with advance buy to produce economic order quantity purchase in FY 83.

In addition to these savings, multi-year contracts contribute to industrial base stability as they maintain production capacity, particularly in second and third tier companies. We are investigating other programs for multi-year contracting in FYs 83 and 84.

New warranty provisions for product performance have been added to government contracts. We have also increased emphasis on post contractor performance reliability and maintainability and have solicited comments from industry on how to obtain more cost effective products.

In addition to $94.2 million for facilities repair, expansion, and modernization and for industrial preparedness efforts, we are requesting $121.1 million for the MANTECH and technology modernization programs which are designed to reduce costs and lead times, increase industrial capability, and secure more efficient and modern manufacturing systems.

In summary, while we believe Air Force programs are sound and aggressive, we will pursue better methods and even more savings in FY 83. Our roles and missions demand no less than our best efforts.

TABLE A

Soviet Military Production

	1976	1977	1978	1979	1980
ARMY MATERIEL					
Tanks	2,500	2,500	2,500	3,000	3,000
T-55	500	500	500	500	—
T-64	500	500	500	500	500
T-72	1,500	1,500	1,500	2,000	2,500
T-80				Trial Output	Trial Output
Other Armored Vehicles	4,500	4,500	5,500	5,500	5,500
SP Field Artillery	900	950	650	250	150
Field Artillery	900	1,300	1,500	1,500	1,300
Multiple Rocket Launchers	500	550	550	450	300
SP AA Artillery	500	500	100	100	100
Towed AA Artillery	500	250	100	—	—
Infantry Weapons (Thousands)	250	350	450	450	400
NAVAL SHIPS					
Submarines	10	13	12	12	11
Major Combatants	12	12	12	11	11
Minor Combatants	58	56	52	48	52
Auxiliaries	4	6	4	7	5
MISSILES					
ICBMs	300	300	200	200	200
IRBMs	50	100	100	100	100
SRBMs	100	200	250	300	300
SLCMs	600	600	600	700	700
SLBMs	150	175	225	175	175
ASMs	1,500	1,500	1,500	1,500	1,500
SAMs	40,000	50,000	50,000	50,000	50,000
ATGMs	30,000	35,000	35,000	40,000	50,000
AIRCRAFT					
Bombers	25	30	30	30	30
Fighters/Fighters-Bombers	1,200	1,200	1,300	1,300	1,300
Transports	450	400	400	400	350
Trainers	50	50	50	25	25
ASW	5	10	10	10	10
Helicopters	1,400	900	600	700	750
Commo/Utility	125	100	100	100	100

TABLE B

AIR RESERVE FORCES
CONTRIBUTION TO TOTAL FORCE
FY 1983

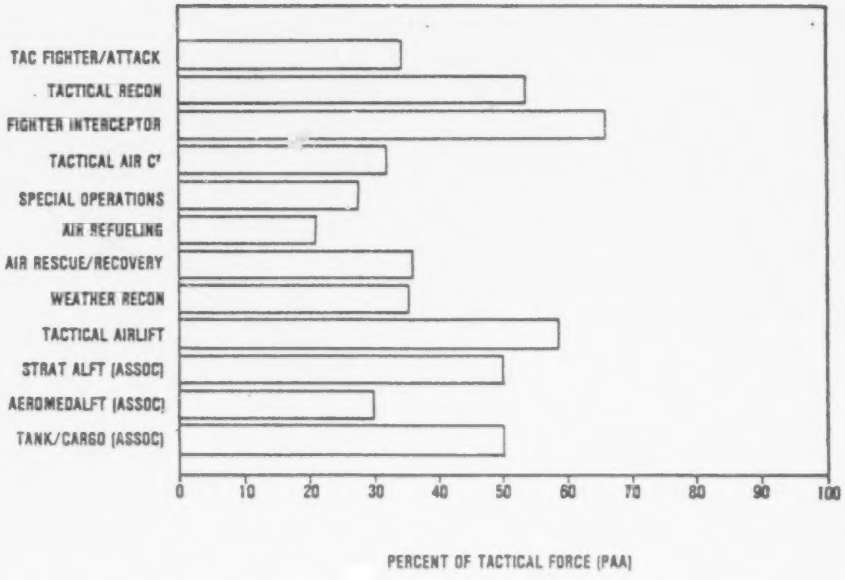

TABLE C

Total Obligational Authority (TOA)
(Millions of $)

	FY 81	FY 82	FY 83
RDT&E	7,133	8,876	11,220
Procurement			
Aircraft	10,298	14,022	17,757
Missile	3,333	4,574	6,828
Other	3,148	5,407	5,845
Military Construction	1,049	1,773	2,224
Military Personnel	10,576	11,055	12,927
Operation and Maintenance	16,860	18,441	20,473
Stock Fund	28	79	161
Family Housing*	0	0	938
TOA	52,425	64,227	78,373
Legislative Contingencies	0	1,530	1,131
Total TOA**	52,425	65,757	79,504

*Family Housing included in TOA effective FY 83.
**Totals may not add due to rounding.

TABLE D

APPROPRIATION
PERCENT OF TOA
(THEN YEAR DOLLARS)

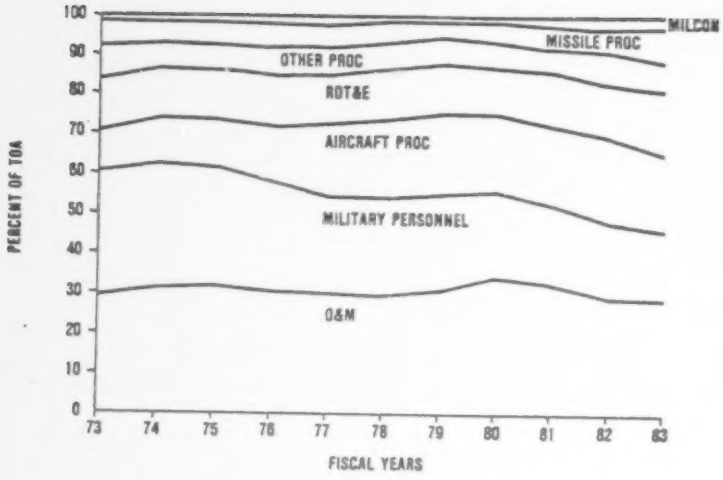

TABLE E

Personnel End Strengths
(In Thousands)

	FY 81	FY 82	FY 83
Active Duty Military	570.3	580.8	600.0
Civilian			
Direct Hire	232.9	234.3	230.2
Indirect Hire	13.2	13.4	13.1
Selected Reserve			
AFR	61.6	63.7	66.6
ANG	98.3	100.1	101.8

Personnel Costs
(Millions of $)

Active Duty Military	9,913	11,578	12,031
Civilian	5,327	5,493	5,754
Selected Reserve			
AFR*	277	328	351
ANG	386	480	545
AF Total	15,903	17,879	18,681

*Excludes ROTC and Health Professions Scholarship Programs which are not included in the Air Force Reserve program.

TABLE F

Selected Key Programs
(Millions of $)

	RDT&E	PROC	FY 83 (QTY)**	TOTAL	
Aircraft (3010) (3600)					
B-1B	754	3,868	(7)	4,622	
A-10	6	357	(20)	363	
F-15	125	1,602	(42)	1,727	
F-16	86	1,959	(120)	2,045	
E-3A (AWACS)	79	166	(2)	245	
TR-1	0	157	(4)	157	
B-52 (Mods)	122	555		677	
KC-135 (Reeng)	29	490		519	
C-5 (Wing Mod)	7	190		197	***
C-5B	1	800	(2)	801	
KC-10	0	790	(8)	790	
Missiles (3020) (3600)					
ALCM	187	665	(440)	852	
GLCM	29	520	(120)	549	
M-X/Adv Tech	2,759	1,446	(9)	4,205	
AIM-7/9	-	314	(3,220)	314	
IIR Maverick	5	343	(2,560)	348	
Space Systems (3020) (3600)					
NAVSTAR GPS*	123	102		225	
Space Shuttle	356	136		492	
DSCS	53	193		246	
AFSATCOM	51	29		80	
Def Sup Prog	120	649		769	

* Includes space, control, and user equipment segments.

** Procurement cost excludes initial spares.

*** Plus $97 million in O&M for kit installation.

TABLE G

Research, Development, Test and Evaluation (RDT&E)
by Category
(Millions of $; funds in parentheses show funding for selected major systems)

	FY 81	FY 82	FY 83
STRATEGIC PROGRAMS	2,720	3,579	4,972
B-52 Squadrons	(122)	(96)	(122)
ASMS	(97)	(100)	(50)
ALCM	(109)	(104)	(187)
AFSATCOM	(26)	(80)	(51)
M-X	(1,492)	(1,963)	(2,759)
MM Improv (Incl MK-12A)	(53)	(20)	(13)
B-1B	(260)	(471)	(754)
TACTICAL PROGRAMS	1,449	1,752	2,201
GLCM	(108)	(80)	(29)
CASWS	(47)	(25)	(5)
F-16	(42)	(57)	(86)
AWACS	(62)	(52)	(79)
INTELLIGENCE AND COMMUNICATIONS	975	1,321	1,436
Defense Sat Comm System	(35)	(40)	(53)
NAVSTAR GPS	(126)	(165)	(123)
TECHNOLOGY BASE	614	621	707
ADVANCED TECHNOLOGY DEVELOPMENT	284	373	472
MANAGEMENT AND SUPPORT	1,092	1,231	1,432
Space Shuttle	(246)	(266)	(356)
Space Booster	(29)	(19)	(15)
TOA*	7,133	8,876	11,220

*Totals may not add due to rounding.

TABLE H

Missile Procurement
(Number of missiles in parentheses)
(Millions of $)

	FY 81		FY 82		FY 83	
Minuteman, Titan and C^3		140		111		0
M-X					(9)	1446
GLCM	(11)	148	(54)	328	(120)	520
ALCM	(480)	579	(440)	605	(440)	735
Sidewinder	(1280)	102	(1800)	132	(1920)	115
Sparrow	(1050)	177	(1025)	211	(1300)	199
Maverick			(490)	231	(2560)	343
HARM			(136)	89	(206)	160
Rapier		90		139		99
Target Drones		2		17		40
Modifications		113		81		160
Spares & Repair Parts		158		210		274
Space Programs		530		841		1297
Special Programs		1312		1572		1484
Industrial Facilities		19		25		27
TOA*	(2976)	3333	(3945)	4574	(6555)	6828

*Totals may not add due to rounding.

TABLE I

Aircraft Procurement
(Number of aircraft in parentheses)
(Millions of $)

	FY 81		FY 82		FY 83	
B-1B			(1)	1622	(7)	3868
A-7	(6)	103				
A-10	(60)	532	(20)	230	(20)	357
F-5	(0)	7	(3)	23	(3)	29
F-15	(42)	952	(36)	1103	(42)	1602
F-16	(180)	1853	(120)	1879	(120)	1959
MC-130H				27		0
KC-10A	(6)	312	(6)	335	(8)	790
C-5B				270	(2)	800
E-3A (AWACS)	(2)	243	(2)	244	(2)	166
TR-1	(4)	98	(5)	114	(4)	157
C-130H	(6)	69	(8)	110		
EDS					(2)	5
NGT						4
UH-60A	(5)	27	(6)	33		
ALCA/ARIA Control Acft	(7)	24				
Modifications		1865		2115		2600
Aircraft Spares & Repair Parts		2710		3899		3657
Support Equip & Facilities		1502		2019		1767
TOA*	(318)	10298	(207)	14022	(210)	17757

*Totals may not add due to rounding.

TABLE J

Other Procurement
(Millions of $)

	FY 81	FY 82	FY 83
Munitions and Associated Equip	344	1,081	854
Vehicular Equipment	158	331	350
Electronics & Telecommunications	709	1,105	1,427
Other Base Maint & Support and Selected Activities	1,937	2,889	3,213
TOA*	3,148	5,407	5,845

*Totals may not add due to rounding.

TABLE K

Operation & Maintenance
(Millions of $)

	FY 81	FY 82	FY 83
Strategic Forces	2,876	3,193	3,085
General Purpose Forces	3,220	3,597	3,833
Intelligence & Communications	1,005	1,150	1,417
Airlift	1,045	1,179	1,202
Central Supply & Maintenance	4,689	4,891	6,034
Training, Medical and Other	1,548	1,763	1,978
Administration & Assoc Activities	354	342	389
Operation & Maintenance/ Guard & Reserve	2,118	2,318	2,528
Support of Other Nations	5	8	7
*TOA	16,860	18,441	20,473

*Totals may not add due to rounding.

CONTINUING RESOLUTIONS

Chairman TOWER. I would like to ask the same question that I asked the Army yesterday. What has been the effect on the Air Force program in the past of operating under a continuing resolution, and what would be the effect on the Air Force's fiscal year 1983 program if you were compelled to operate at fiscal year 1982 budget levels under proposals that have been initiated by certain colleagues of mine?

Secretary ORR. Two questions, and I would divide them. The temporary effect of operating under a continuing resolution with the expectation that the budget will come forward in a week or a month, as is sometimes done, presents the difficulty that most continuing resolutions provide for no new starts, and maintain programs at the previous level. That means that you can neither enlarge a program nor can you get started. As it goes on down the line farther and farther, it becomes more difficult in the fiscal year to get the programs under way. As a result, they become crash programs.

Much more difficult would be any sort of freeze, permanent, yearlong freeze at the preceding level. I have talked extensively with the other secretaries and with the Secretary of Defense and the Deputy Secretary. Unfortunately, the Soviet Union has engaged in no freeze whatsoever. The threat which has been clearly outlined by Mr. Weinberger's books and his speeches, but particularly in the book he published, I think 4 months ago, clearly outlines the threat that we face.

You are familiar and I am familiar with the old saying that when we build, they build, and when we stop, they build. If we were to have any sort of freeze at the 1982 level, I think it would be very, very harmful to the defense of the United States.

Chairman TOWER. Do you have any additional comment on that, General Allen?

General ALLEN. No, sir. I agree entirely. We have had experience with continuing resolutions, and it is disruptive. They do not allow us to proceed with what we think are the most important of the activities we have underway. A year-long one would really be a most inefficient and unsatisfactory approach.

STRATEGIC FORCES

Chairman TOWER. Mr. Secretary, the contention has been made that President Reagan's program represents significant unilateral reductions in our strategic forces. The retirement of the B–52 bombers, the Titan missiles, the reduction of the total number of MX missiles to be deployed, and the delay in deploying advanced technology bombers are pointed to as examples of ways in which our strategic capabilities may be lessening under the Reagan modernization plan.

Would you address these assertions from your point of view, and in particular will you discuss the pros and cons that are considered, and which motivated the decisions with regard to retiring the B–52D's and the Titans?

Secretary ORR. Yes, indeed. In the first place, I don't think the total assertion that American defenses are weakening holds water

at all. I think they are being very greatly strengthened, and I think the increased production of F-15's and F-16's and the development of the MX missile, the B-1, the ultimate work on the ATB, and the tremendous amount of work on command, control, communication control and intelligence (C&I), which is described in this budget, all point to that fact.

Insofar as the phaseout of the B-52D's, they are obviously the oldest of the B-52's that are in service. They have a much more limited capability than the G's and H's. We will be phasing them out shortly before the B-1 becomes available. We start to phase out in October of this year, I believe it is, and we will still maintain two squadrons of them into the outyears. The decision was made that the B-52D's had for all practical purposes served the greatest part of their usefulness, and that the money saved would be better spent on the other programs. As to the phasing done of the Titans, I was interested to learn that it was first discussed within the Department of Defense in 1970. Not made public, I think, at that time, but internal documents indicate that there was put forward a plan in 1970 to phase them out in 1970, 1971, 1972, and 1973. Titan II's have been recognized as not only the oldest of our missiles, but the most difficult to maintain. We have had two very unfortunate accidents with them. We are spending a great deal of money to make them safer. The feeling was that at the slow rate that they will be phased out, the last one will be phased out at the time, I think, 85 percent of the MX missiles are in place, there would be a gradual change from the Titan to the MX.

Chairman TOWER. Do you have any additional comments on that, General Allen?

AIR LAUNCH CRUISE MISSILE

General ALLEN. Just to add to that a couple of points. One point is that the ALCM program, the air launch cruise missile program, which is coming in quickly, in terms of numbers of weapons and in terms of accurate weapons, substantially outweighs the reductions that are associated with the arriving weapons on the B-52D's or the Titan II's, so there certainly is no reduction in numbers of arriving weapons.

There is a reduction in megatonnage, because both the B-52D's and Titans carry large weapons, but, as the years have gone by, we have generally chosen to emphasize the count of weapons arriving more than we have megatonnage. We have given a lot of thought to these retirements, and our decision clearly reflected an attempt to be fiscally responsible. There are substantial funds saved by these somewhat early retirements. We believe they are allowable because of the progress that we are making in the other weapons that are being introduced. The overall program is clearly one of improvement.

You mentioned one other factor which was not discussed, and that is an alleged delay in the advanced technology bomber. Of course, we don't believe we have delayed the advanced technology bomber. We believe we are proceeding on the development of the technologies and capabilities to build such an aircraft as rapidly as it is sensible to do.

Chairman TOWER. Mr. Secretary, since the President's strategic force modernization program was announced last fall, there have been some important refinements to the interim-basing scheme for the MX missile. A decision was made not to try to superharden temporary shelters, and for those temporary silos to be Minuteman rather than Titan II silos. Do you support these changes to the program, and do you have confidence that it represents a prudent, needed means of deploying MX until such time as the long hoped for permanent basing scheme is decided upon?

Secretary ORR. I support them fully. I would reiterate that particularly the basing in the Minuteman silo is seen as an interim measure until this country decides on a final basing mode. It will give us the capability of the MX. It will give us the additional warheads, well over what the Minuteman has. It will give us extended range. It is an excellent solution, as long as we understand that it is only an interim solution, and as I am sure the chairman and the committee knows, we are actively pursuing several alternatives for the long term which include a continuous patrol aircraft, deep underground basing, some form of deceptive basing, and in connection with deceptive basing, antiballistic missile defense.

So, there are a number of ongoing programs with the decision to be made in about 1 year and 3 months on something more permanent. In the meantime, I support the move to put the MX in the Minuteman silos. I think all studies indicated that putting them in the Titan silos would be prohibitively expensive.

BASING MODE

Chairman TOWER. Mr. Secretary, as you know, there is very strong support on this committee for a deceptive basing mode. It is my understanding that the President only rejected the specific basing mode that we had authorized, but does not rule out entirely the idea of a deceptive basing mode with a BMD overlay. I notice you mentioned that as the third option. I would hope it would be considered as one of the principal options. There is a great deal of skepticism in this committee on the viability of continuous patrol aircraft or on the deep silo basing from the standpoint of survivable urgent hard target kill capability. We would like some assurance that a deceptive basing mode with a BMD overlay is a prime option.

Secretary ORR. Mr. Chairman, I am acutely conscious of the interests of this committee. I made it a point, as you note, to mention the deceptive basing mode, and I can assure you that it will be given full consideration. It is our understanding also that the particular multiple protective shelters in Nevada and Utah which were specifically ruled out by the President and which we now consider to be a dead issue did not preclude consideration of any other type of deceptive basing, and we will be continuing our study on that, and it will be coordinated with any antiballistic missile defense study.

The primary part of the latter, of course, comes under the Army, and we will be working very closely with them on that.

Chairman TOWER. Do you have any additional comment on that, General Allen?

General ALLEN. No, sir.

Chairman TOWER. My time is up. I will turn now to the world's oldest surviving aviator.

[General laughter.]

Senator Goldwater?

Senator GOLDWATER. Thank you, Junior.

[General laughter.]

PILOT RETENTION

Senator GOLDWATER. In your joint statement, on page 2, you note that enlistment rates were up for 1981 by 15 to 20 percent, and pilot retention was up nearly 30 percent. Do you find that trend is continuing in 1982?

Secretary ORR. Yes, sir, it is continuing. As you well know, I need to caution that the airlines are not hiring. It is my understanding that in the 1978–79 period we lost 6,200 pilots, at a time when the airlines were hiring at the rate of over 4,000 a year. Now the hiring has dropped to about 1,000 a year, and may be dropping even further. There are thousands of airline pilots on furlough, so the figures have to be taken in consideration of the fact that many of the outside jobs which might attract our pilots are not there, but I don't think that is the entire picture. I think the pay and allowance advances, I think the removal of the pay cap, I think the greater pride in the uniform plus a continual effort to upgrade housing have also had a very material effect.

I will tell you one other thing, Senator, that I think incidentally has an effect. Getting our bins of spare parts filled, so that planes are not grounded, will have a very beneficial effect on both pilots and mechanics. Having been an automobile dealer, I know the frustration that a good mechanic experiences when he is unable to complete a job that he has torn down because there are no parts in the parts bin. It is frustrating to a mechanic, frustrating to a pilot to have his plane grounded.

POOR LIVING CONDITIONS IN EUROPE

Senator GOLDWATER. A recent paper put out by the Association of the U.S. Army comments on the very, very poor living conditions that our ground forces have to put up with in Europe. In fact, some of them are occupying barracks built before World War I. Now, how are our accommodations in the Air Force generally overseas?

Secretary ORR. While I have not visited army locations, I have visited a number of bases in Europe and it is my impression that generally overseas our locations and our personnel do better because our Air Force fights from bases which are permanent, and the Army philosophy generally is that they are going to move out of those bases into a forward area when they fight. So, there has been, I think, for 15 years or more greater emphasis on housing in the Air Force.

However, we have visited buildings where a mother with two children was living on the fourth floor of a walkup apartment and the laundry facilities were in the basement, so this mother with two children had to go five floors down to do the laundry. We have

visited others where families living on the economy were in a basement apartment which oozed enough moisture so I am sure their furniture would have been ruined in a year or two.

I do not mean to imply by any means that everything is fine and roses. There is still need for more work to be done in the Air Force on housing, even though I will be very honest and say I suspect we are better off than possibly the Army is. But General Allen may have something to add to that.

General ALLEN. No. I believe that is correct. I have nothing to add.

TITAN II MISSILES

Senator GOLDWATER. Just the other day, you announced that you are retiring the Titan II missiles particularly around Davis Monthan AFB in my State. It is not your intention to replace these missiles with any other missile. Is that right?

Secretary ORR. It is our present intention to keep those silos, those empty silos in a warehouse state, but at the present time we do not have the intention of putting any other missile in them.

Senator GOLDWATER. The silo for the Titan is much larger than the Minuteman.

Secretary ORR. Yes; it has living quarters in it.

Senator GOLDWATER. Would this silo be able to fire more than one Minutemen with damage that might be done on a first launched Minuteman?

Secretary ORR. I am going to let General Allen respond to that question.

General ALLEN. No, sir. I have not done that study, but I would estimate that if we did do it, we would end up concluding it was more expensive to modify that Titan silo to handle a couple of Minuteman that it was to build two silos for the Minuteman.

Senator GOLDWATER. But also at the same time you are retiring, you are going to retain some Titans, and as I understand it you are implementing the retention of those Titan's with modifications. Is that correct?

Secretary ORR. We are going to retire the Titan's at the rate of 1 a month, and since there are approximately 52, that stretches out to almost 5 years. In the interim we will continue to put in the necessary safety devices, alarms, and arrangements which are mandated by the most recent accident in Arkansas. There are certain safety measures, and since the program will have Titan's in it for 5 years, we cannot afford to stop that program.

Senator GOLDWATER. I notice that they have discovered a reason for that accident.

Secretary ORR. That article in the paper this morning was not about the most recent accident in Arkansas. It referred to the earlier accident, I believe in 1978.

CONVERTING F-106 SQUADRONS TO F-15'S

Senator GOLDWATER. Fine. Now, in the prepared statement, there is a discussion, about the Air Force plans to eventually convert five active F-106 squadrons to F-15's which leads me to this question. I understand the Air Force intends to buy more F-15's and F-16's

than were previously planned. Could you explain the justification for these increases, and could you give us an idea of what the new total is going to be?

Secretary ORR. May I ask General Allen to answer that?

General ALLEN. Yes, sir. There really are several ways of approaching the question. The first one is, what rate of fighter production does the country need? We estimate that from the force structure which we think is essential to meet the threat, then we calculate that 20 years lifetime in service is about what we should plan on for a fighter aircraft. Recent history has shown that to be not too bad an estimate. Some aircraft do a little more than 20, and some do less.

So, we work for an average 10-year life on the force, and the force is a little under that at the moment. To maintain the force at that age, we would need to produce in the range of 250 to 300 aircraft per year on a steady rate basis. The program which we have in 1983 is not quite large enough to maintain the force properly. But, on the other hand, we can average our aircraft procurement out over the years, and it is not very bad.

Now, we had earlier planned to introduce a new fighter during the decade of the eighties and had funds in the program for an advanced aircraft. We are very satisfied with the F-15 and F-16 and I believe that we should emphasize, as you pointed out in your opening statement, Mr. Chairman, as high production rates as we can for those aircraft. We have postponed any idea of introducing a new fighter in the inventory until the nineties. Therefore, we intend to keep producing both F-15's and F-16's through the eighties.

Now, our plans include replacement of the F-106's in the active duty air defense forces with F-15's, and in the Guard and Reserve forces with either F-15's or F-16's.

Senator GOLDWATER. I notice in your statement that the total buy of 16's and 15's through 1983 appears to come to just under 4,000. Is that a satisfactory rate in view of the fact, if this figure is correct, the Soviets now outnumber us about 5 to 1 on tactical aircraft?

General ALLEN. The rate is not as high as we wish it to be. We do anticipate that the priority emphasis we have been obliged to give to war reserve materials and munitions in this budget and last year's budget will decrease some in the next few years, and we will be able to increase fighter production rates, so our plan does show that beyond fiscal year 1983 we have increasing fighter production rates, and we need to do that.

Senator GOLDWATER. I see now that I was reading from the wrong table. I was reading millions of dollars, not numbers. But I think you answered my question. The rate should be higher, if we can afford it.

My time is up, but I have some more questions. Before we finish, does anybody with you or do you know the average time today on the B-52 G's and H's, the average time per aircraft?

Secretary ORR. The average hours?

General ALLEN. It is not terribly high in terms of, for instance, 30,000 hours on a 707. It is a number much less than that, because, of course, their utilization rate remains low in their peacetime role.

I will find the number, Senator, but my guess is that it is probably down in the 3,000 to 4,000 range.

Senator GOLDWATER. I think the life expectancy of the airplane was around 10,000 hours.

General ALLEN. But that was at high altitudes, sir, and it has been materially changed by the low altitude utilization of it. Of course, we did additional skinning and all to compensate for that.

Senator GOLDWATER. Thank you.

Thank you, Mr. Chairman.

[Whereupon, the committee went into a brief business meeting, and resumed immediately thereafter.]

Chairman TOWER. Senator Cannon?

Senator CANNON. Thank you, Mr. Chairman.

INCREASE NUMBER OF F-16

General Allen, following up on the line of Senator Goldwater's question, a recent Aerospace Daily article said the Air Force was going from an F-16 buy of 1,388 to 2,333 aircraft. Is that correct, and if so, is that a part of the plan that you were outlining for Senator Goldwater?

General ALLEN. I really am not certain that I recognize those numbers, and I could perhaps give you for the record better numbers. As I understand the commitments that are made in terms of lead time and the multi-year procurement aspects in the 1983 budget, it does go through the 1,388 production number of F-16's that has been discussed with the committee for some years.

We do plan to purchase more, and so it depends on how far out one takes that rate. Through our 5-year plan, I believe that number goes to approximately 1,500, but I wouldn't be surprised that we would be able to show a planning number of the larger amount.

Senator CANNON. Now, you responed to Senator Goldwater as to some of your plans of increasing the numbers of the F-15's and F-16's. Would you describe the scope of the Air Force plans to expand its fighter force and to modernize its interceptor force in terms of when you expect to complete those efforts and what levels of aircraft procurement will be required?

General ALLEN. Senator Cannon, let me try to describe it this way. The Air Force has a certain number of tactical fighter wings which are its force structure objective. We are approximately at that level now. We are a couple of fighter wings below the equivalent of what our force structure near-term goal is. We have, as we put our priorities together this year, as we will put them together in the subsequent years, addressed the fighting capability of the current forces, and placed the priority there. That means spares and the munitions.

MODERNIZATION OF APPROVED FORCE

The next place we have placed our priority is in the modernization of that approved force. That is, let's say in a force of three dozen wings, replacing the aircraft in the inventory which are greater than 20 years of age with new production aircraft. The 1983 budget only does that. We were not able to increase the

number of fighter aircraft that we plan in inventory at the 1983 production rates. As a matter of fact, the rate is not even enough to keep the average age where it should be, that is the average aircraft age at 10 years for a 20-year life.

Senator CANNON. And that is with the 38 wing objective. Is that right?

General ALLEN. Yes, sir. The basic Air Force objective is in the vicinity of 40 wings, and we are under that now, and are attempting to build during this program to meet that objective. To do that, requires a continuing aircraft production which is larger than the 1983 program. It is our intention that that production through the eighties be F-15's and F-16's. As we go along, we will be retiring older aircraft through the decade and replacing them with F-15's and F-16's.

The next major increment of retirements, for example, concerned the oldest aircraft in the Air Force inventory at the present time are the F-106's. The F-15, and perhaps the F-16, or a variant of the interceptor version, are suitable candidates to replace the F-106's.

Senator CANNON. When do you expect to get to the 40-wing level?

General ALLEN. I do not believe we will get to a fully equipped 40-wing level within the 5-year period.

MESP PROGRAM

Senator CANNON. Mr. Secretary, last year the Congress provided $35 million for lithium batteries to power a Minuteman force known as MESP, Minuteman extended survivable power program. As you know, we have had correspondence about the fiscal year 1983 and beyond with reference to continued funding. How much money are you requesting for the lithium battery program for 1983 and 1984?

Secretary ORR. I do not have that figure in mind, Senator. I can get it possibly from people here, or I can produce it for the record. I know definitely there is money in the 1983 budget for it. Do you have that?

General ALLEN. Yes. There is $34.9 million in the 1983 budget for that program.

Senator CANNON. And you do not know what you will be requesting for 1984?

Secretary ORR. We have not begun talking with Defense yet or to formulate the 1984 budget yet, Senator.

Senator CANNON. Is the program underway now since the green light was given for this year? Are they still getting ready now to gear up?

Secretary ORR. I do not know the status of it. Do you, General Allen?

General ALLEN. I do not know. Since the congressional action on the 1982 budget, however, we have begun the process, and I don't know the status of it to date. We will give that to you for the record.

MX MISSILE

Senator CANNON. There were two articles in today's Post. One said the Pentagon plans to increase missile warheads aimed at the Soviets. The other said the President is scrapping the second MX idea, that is, the hardening of the Minuteman silos to accommodate the MX. Could you address your response to those two points?

Secretary ORR. Yes. The first one refers to the decision to replace 50 Minuteman II's with Minuteman III's. Since each missile gains an additional 2 warheads, there is a total of 100 additional warheads. So that is a net increase.

The second article is related to the continuing study of how we go about basing the MX. The very first decision by the Secretary of Defense was to consider both the Minuteman and the Titan silos. Initial studies on the Titan showed that it would be prohibitively expensive to put the MX in those silos. So it was decided to put them in Minuteman silos. There has then been a consideration of how much to harden the Minuteman silo, and this ranged from what has been called superhard down to just placing the Minuteman on an interim basis in the silo as it now exists.

Looking at the cost to harden or superharden compared to the benefits to be gained since there was no deceptive basing and since the location of the targets is well known, it was a decision that money spent to harden or superharden would not be well spent. So, the present decision is to place 40 MX missiles in an equivalent number of Minuteman silos with the minimum of expense without additional hardening, just placing them in the Minuteman silos that are there.

That also will increase the number of reentry vehicles from 3 per silo to 10, so there will be a net gain.

Senator CANNON. So there would be no added hardening of those silos?

Secretary ORR. The present intention is not to harden further.

F-15 AND F-16

Senator CANNON. General Allen, if we could get back to the F-15 and F-16 for a moment, does the Air Force have plans to competitively test alternative engines for use on the F-15's and F-16's?

General ALLEN. On the F-16, yes, sir. An F-16 is now flying with the F-101 GE derivative fighter engine, and there are such tests also under way with the F-14. We have not planned to make such flights in the F-15, but we do intend to bring the F-101 fighter engine up to the point where the competition can be realistic, and there is money requested in this budget to continue development of the 101 fighter engine.

Senator CANNON. Will that competition include the 101-X and the F-100 engine as well?

General ALLEN. On the fighter aircraft, it is the derivative fighter engine from the 101, versus the F-100. We do intend to bring the 101 engine through these tests and with additional moneys to where there can be a meaningful competition. That will put Pratt Whitney and GE in competition on those aircraft.

Senator CANNON. And then you would plan to retrofit them with one of those engines?

General ALLEN. No, our plan at the moment, and of course we are really not quite far enough along, would not include retrofit. They would include a competition for aircraft yet to be built.

Senator CANNON. I see. So it would just go into the existing production.

General ALLEN. Yes, sir, and that is because modifications of the aircraft, while not difficult to make during production, are expensive to make in a retrofit. So there would have to be a very strong reason to want to do it.

Senator Cannon, can I return for just a second, because of a couple of numbers? One, the number that we do have in our program on F-16 total production is 2,333.

Senator CANNON. That was the figure that I gave you, 2,333.

General ALLEN. Yes, sir, and I was mistaken when I said our planning doesn't show us getting to the 40 tactical fighter wing number during this period. It does show that in the out years.

Secretary ORR. I believe, General Allen, if I remember the actual figure it becomes 40.7 tactical fighter wings at the end of 5 years.

Senator CANNON. At the end of 5 years.

Secretary ORR. Isn't that my understanding?

General ALLEN. Yes, sir.

Senator CANNON. Thank you, Mr. Chairman. My time is up.

Senator GOLDWATER [presiding]. Senator Warner?

Senator WARNER. Senator Humphrey was here first. I will take my position after him.

Senator HUMPHREY. Thank you, Senator Warner.

REDUCING O. & M. ACCOUNTS

General Allen, as you know, there is some sentiment around here to reduce the administration's request for the Department of Defense. I am concerned that any such reductions which materialize might, as has been the case in the past, fall heavily in the area of O. & M. accounts. What advice would you have for the committee and for the Senate with regard to that problem?

General ALLEN. Touch them last, because we have made terrible errors in the past reducing those kinds of accounts, because they are aggregations and therefore hard to defend. We, ourselves, have done that when there have been budget crunches, and then the Office of the Secretary of Defense has done it, and Congress has done it in previous years. We have found over the last few years that we made a terrible error in doing that.

The error is in having forces that are not really ready to fight, even though they are there, and you can even make them look good for a short time. But they don't have the sustainability and the capability and the real training to actually fight. And, you cannot hide from your people what you are doing: that is, you are underfunding their capability to be ready to go to war, and they lose their enthusiasm.

They did not believe we really were managing our affairs correctly. Morale went down. Their confidence that we were serious about being consistently ready to fight became low. We just don't want to go back into that again. We want to keep our flying hours up. We want to keep the accounts that enable the force to be a true fight-

ing force where they should be. I think that that should be a very high priority item for us and for Congress as well.

PREPAREDNESS AND SUSTAINABILITY

Senator HUMPHREY. In your joint statement you make it clear that high priority has been placed on improving combat preparedness and sustainability of our forces. What you have just said is that if Congress were to make cuts in the area of O. & M., it would thwart the high priority that you have laid out for 1983.

General ALLEN. Yes, sir.

Senator HUMPHREY. It is pretty clear that there is no account that bears more directly on readiness than the O. & M. account. Would you agree with that?

General ALLEN. Yes, sir.

Senator HUMPHREY. In practical terms, you have mentioned the result of those mistakes, terrible mistakes as you characterized them, made by both the Congress and the Department of Defense in cutting O. & M. because it happened to be an easy target in past years. What would specifically be some of the practical effects if substantial cuts were made in the 1983 O. & M. account for the Air Force?

General ALLEN. I think that the area I would be most concerned about and the area which we would end up going into first is flying hours, because that is such a large portion of our O. & M. account. When we would try to address a percentage cut, it was easy in the past for us to back the number of hours down from 18.5 average per crew down to 15, and then argue that we would use simulators more efficiently and make up the time.

We were burned badly doing that in the past. I would not like to do that again.

Senator HUMPHREY. What do you mean by being badly burned?

General ALLEN. We overshot considerably the amount of training that we could do on simulators instead of flying time. We found that we needed the flying time. We seriously antagonized the pilots. That is, they knew they weren't flying enough to do the missions that we were asking them to do, and they told us so. Some of them told us by leaving, which was a very painful matter. And they were not up to snuff. That is, they could not pass the graduated measures of combat performance which we have for them. That performance is very sensitive to the number of hours we have those pilots flying. That does have a big leverage on the O. & M. account, and it would almost have to be one of the ways we would cut money. But, it would be a very unwise move.

Secretary ORR. Senator, can I add something on that?

Senator HUMPHREY. Yes, of course, Mr. Secretary.

Secretary ORR. I do not mean this to be far-fetched, but it does enter into it. I studied with great regret and great interest every accident report, and in talking with the Inspector General the thing we always talk about is the experience of the pilot that went down, and while you can't say that cutting from 18 to 15 hours per se has an impact, there is no question that the less experience the pilot has, the more likely he is to get into difficulty. So, in the long-run flying time would have some effect on our safety record.

Senator HUMPHREY. According to your statement, the O. & M. account comprises 26 percent of the Air Force budget for 1983. Do you have that figure for last year and this year, 1982?

General ALLEN. I am sure I can get it. May I provide it for the record, Senator?

Senator HUMPHREY. All right, but as a general statement, has the O. & M. share of the pie increased for 1983 or remained the same?

Secretary ORR. I am going to offer you the suspicion, and I will confirm it in the record, that it has not increased only because the other part of the budget, the procurement, has gone up, so percentagewise it has not increased. Dollarwise it would have increased substantially.

Senator HUMPHREY. As a matter of fact, you address that on page 28. Our fiscal year 1983 budget provides for critically needed real growth in the O. & M. account. That doesn't necessarily mean it is proportionately greater, but there is real growth there, contingent upon hitting the forecast level of inflation. What level of inflation are you applying to the O. & M. account?

Secretary ORR. Do you have that figure?

Senator HUMPHREY. Does any of your staff have that?

Secretary ORR. We did obtain through the Department of Defense a modified area of inflation for defense, but I suspect strongly it was procurement and not O. & M. which entered into that. I am going to hazard that it is in the 8-percent bracket, but I will ask for support. I do not hear it. We will have to provide it for the record.

[The information follows:]

The O. & M. account represented 28 percent of the fiscal year 1982 Air Force Budget. After excluding categories covered by pay supplementals, rate stabilized for special exceptions, the O. & M. accounts were inflated at the rate of 7.0 percent for fiscal year 1983.

Senator HUMPHREY. Fine. We all know the various military accounts unfortunately experience an inflation rate that considerably exceeds the rate for the general economy, and I hope that in your inner councils you will continue to press in future year budgets for an even more realistic figure. I understand in the 1983 budgets it is somewhat more realistic for the military account, but still is a little bit pie in the sky, in my opinion.

It is just asking for trouble. We really create problems in defending defense expenditures when we underestimate inflation and all of a sudden we have programs that are wildly out of control, and we have to cut down on the purchase which drives up unit costs. It is a poor way to operate and I hope that in future years we can have inflation forecasts based on experience rather than on hope.

Secretary ORR. Yes, sir.

Senator HUMPHREY. I would urge you to argue for that. I rather imagine that you do.

General ALLEN. A little lower inflation would help, too.

Secretary ORR. We do, Senator, because we don't have any great enjoyment in coming to you and other Senators with costs that have run out of control, and to the extent that inflation has been underestimated, it brings us over here.

SPARES AND WAR RESERVES

Senator HUMPHREY. With regard to spares and war reserves, which is on page 29, you say that this budget continues the emphasis of the past two budgets to correct aircraft spare parts shortages, peacetime operating stocks, and WRSK/BLSS kits are fully funded at $2.3 billion and $0.4 billion respectively. What do you mean by fully funded?

General ALLEN. That we have funded those to their specification of [deleted] days at wartime surge rates.

Senator HUMPHREY. So, that presumably if you get all of that by the end of the year you will be up to those rates.

General ALLEN. Many of the items, for example, have a 2-year leadtime, so those won't fully be on the shelves for 2 years from now, but they are fully funded to that [deleted] day wartime level.

Senator HUMPHREY. My time is up, but I have one last question. What about other war reserve stocks at $102 million? That doesn't sound like very much. Are we making any progress there?

General ALLEN. Yes, sir. Those are the days of stocks that are beyond the [deleted] day point, and our direction is to have those funded to the [deleted] day point by the 5-year period, and we have accommodated that even earlier. We will have done it by fiscal year 1985.

Senator HUMPHREY. Will this 1983 increment accomplish what needs to be done in order to reach that 5-year goal?

General ALLEN. No; it fully funds those [deleted] days of fighting stocks at wartime rates, and it begins the funding of the additional days on out to [deleted] in the case of tactical aircraft and [deleted] in the case of airlift aircraft. We will not complete that for a couple more years.

Senator HUMPHREY. You are supposed to finish it in the 5-year plan, but are we making sufficient progress in 1983 or are we deferring the bulk of that to later?

General ALLEN. We are makng a great deal of progress. The consumption of stocks is not uniform across time. There are two reasons for that. One is because the planned sortie rates, utilization rates are much higher during the early stages of the war and then they decrease. In addition, the repair of the repairables in the war reserve materials begins to enter the flow in our war planning before the 30 days is up, around day 14 or so. Therefore, the additional levels of stocks required to add those additional days is a decreasing amount as one goes on out. The money we are requesting does begin to make a substantial impact on those requirements and then we do more in each of the next several years.

Senator HUMPHREY. Thank you.

Senator GOLDWATER. Senator Warner, we are going to take you gentlemen in the order you showed up.

Senator WARNER. Thank you very much Mr. Chairman. I welcome these witnesses and congratulate them on their past year's activities.

MARITIME STRATEGY

I want to turn right away to the question of the allocation particularly of obligational authority in the out years. And it is very

clear that the President and the Secretary of Defense have put a strong emphasis on the maritime strategy, and my examination of those increases for the fiscal year 1983 and particularly the out years show a substantial enlargement of the sums going to the Department of the Navy.

And my question to you, Mr. Secretary, is are you prepared to support that fully?

Secretary ORR. Yes, sir. Our budget from 1983 compared to 1982 has suffered no detriment, according to the plans that are presently in progress.

Senator WARNER. And, General Allen, your duty is to scrap as hard as you can for as many dollars, but it is going to require some reconciliation of the differences among the service chiefs to accept that, I think, in the out years to the Navy.

General ALLEN. We all share a common objective of supporting the President and the national policy. So there is no reluctance to do that, and we intend to do that in a unified way.

BALLISTIC MISSILE DEFENSE

Senator WARNER. General Allen, on the top of page 8 you refer to the R. & D. going on in the BMD. In view of the abandonment of the hardening concept, is there a greater emphasis now put on that BMD alternative?

General ALLEN. Yes, sir. It was high before, but I think, if anything, it is higher as we decided not to proceed on superhardening.

Senator WARNER. Well, this brings us to the question, and I think from time to time it is the responsibility of the Secretary of Defense working with the Congress to look at the allocation of missions among the departments.

In view of the increasing importance that I attach to BMD, I am wondering if the Department of Defense is reexamining the roles and missions of BMD vis-a-vis the Army and the Department of the Air Force.

General ALLEN. I believe the right answer to that is yes, we are reexamining it, although it is not a burning issue. And the reason it is not a burning issue is that the Air Force and the Army have been able to work together effectively. We do not see any reason right at the moment why we cannot continue to work effectively. The Army basis for that work and research is of very long standing, because they have been conducting this program for many years now, with the work at Huntsville and all the people interrelated with that forming a great base of competence in addressing ballistic missile defense.

So although your question is valid and, in perhaps a doctrinal kind of sense, we are asking that question of ourselves, we simply do not feel a burning need, to change that.

Senator WARNER. Secretary Orr, would you like to address that question?

Secretary ORR. No; I support General Allen, and I would also say that I never knew Jack Marsh before I came to Washington, and I do not know anyone who is easier to work with or more cooperative in trying to work out common problems.

Senator WARNER. Mr. Secretary, I appreciate that. I have known Secretary Marsh for decades, and I assure you he is unquestionably proper.

But my point is with the increasing emphasis in defense spending and the need to find a basis for savings, there may well be a redundancy between the two departments which could produce a savings.

While you will be there for, I hope, a number of years, and Secretary Marsh, we are looking at BMD programs spanning decades, three or four Secretaries of Air Force and Army, and likewise, service chiefs.

It may well be that Congress has to take the responsibility, because I have certainly had some experience with the sensitivities in the department in this area.

It seems to be that with the continuing complexity of trying to resolve this ground-based segment of our strategic forces, that in all likelihood BMD is going to emerge as one of the stronger elements in whatever system we eventually gravitate to. I am becoming concerned as to whether or not one military department should have overall responsibility for this ground leg in the coming years.

Do you gentlemen have any more comment on that issue?

Secretary ORR. I am going to let General Allen respond, because I think he is far more familiar because of his work down in what we call the tank with the other chiefs. But I would say that I am not at the moment aware of any great amount of effort that would be redundant if the Air Force took that over.

The only area that I am aware, and I will bring it forward because it is an area that we will be talking with the Army about, is airfield defense where there are different systems in England and conceivably down the pike there might be different systems in Europe for the defense of airfields.

As you well know, we had a system in England in which the Army did not participate and was quite willing not to participate. That touches on the very fringe of what you are speaking of, but it does not get to antiballistic missile defense.

General Allen?

General ALLEN. I really have nothing more to add. I understand your point, Senator Warner, and it is, or course, one that we should continuously be aware of.

I am at the moment really not aware of advantages that would be gained by changing the present arrangement, because I do not think we have redundancy. So far the direction on the funding has been formulated by OSD with us as full partners. So that has not been an issue of trading within Army priorities, which would be a sore point if we had to do that.

Senator WARNER. Well, then your sentence, "We are examing BMD defense basing alternatives," means you are doing it and the Department of the Army is doing it?

General ALLEN. No; we are doing it together.

Senator WARNER. You are doing it together?

General ALLEN. Yes, sir.

GROUND BASING AND MX MISSILE

Senator WARNER. All right. Turning again to the ground-based leg, in view of the decision to drop the hardening, I foresee in the Congress, certainly on the Senate side, our colleagues questioning going ahead with the MX missile itself at a time where this indecision continues. I think we must tighten the record up here today on the need to maintain the momentum with respect to the missile irrespective of this shifting decision course on the basing mode.

Is there anything you would like to add to the record in terms of the need to continue on track with the present schedule of the missile?

Secretary ORR. I would like to have General Allen talk to the need of it. I would like simply to say that the missile is going along very well. The missile is on schedule, it is performing its various stages of tests in fine fashion.

General Allen?

Senator WARNER. Oh, I do not question that. My question is that our colleagues are going to say, is there any savings there in the missile development/production cycle that we should look to now in view of the indecision on the basing mode?

General ALLEN. No, sir. Ever since we decided that there would be some delay in basing, we have examined whether there was money to be saved by either stretching out the MX procurement, or by shifting to the further reliance upon the D–5, for example. And in all of those cases we concluded that it was appropriate and in the long run was going to be less expensive to continue with the MX missile on the schedule we have.

The country needs to have that missile available. We also need to find a permanent basing mode. It is acceptable as an interim basing mode to put MX in the Minuteman silos. As such, it will put the Soviet SS–18's, in particular, at risk. MX deployment will be useful in the START talks when they begin. And it is important for the country that we not suffer a major hiatus as we pick the permanent basing.

Senator WARNER. All right. You are coming down strong on the need to maintain the present cycle for that missile?

General ALLEN. Yes, sir.

Senator WARNER. No equivocation whatsoever?

General ALLEN. None.

Senator WARNER. And you join in that, Mr. Secretary?

Secretary ORR. Yes, sir.

C^3

Senator WARNER. Turning now to the C^3 situation. As you know, the Congress has been putting increasing emphasis on the upgrading there. I understand that there may be a shortfall in the funding requested for what I regard as one of the more important elements in the C^3, the MILSTAR satellite program.

Would you care to comment on that, General?

General ALLEN. Yes, sir.

Senator WARNER. I understand that the shortfall is in the order of $50 million the fiscal year 1983 budget, $200 million in the 1984

budget. Does this indicate any moving away from the President's announced commitment to enhance the C^3 system?

Secretary ORR. Is this the NAVSTAR or the MILSTAR?

Senator WARNER. MILSTAR.

Secretary ORR. MILSTAR. I am not able to speak on that. I was not aware of a shortfall.

Senator WARNER. Well, would you care to speak in generalities about the President's commitment to enhancing C^3 and whether there has been any shift in that emphasis?

General ALLEN. No, sir, the emphasis remains on C^3. There are a number of important programs that are contained in this 1983 budget. And as you heard testified during the 1982 program, many of us regard that element of modernization as perhaps the most important, because it is a deficiency which needs prompt correction.

ATB FUNDING

Senator WARNER. My last question, first to the ATB funding profile. Again, a commitment was made in the context of the 1982 cycle that you had funded that program in such a way as to maintain its momentum. Has there been any derogation for 1983 in that funding profile?

General ALLEN. No, sir.

Senator WARNER. Still going ahead as fast as you feel the moneys can be expended in terms of the R. & D. milestones?

General ALLEN. Yes, sir.

Senator WARNER. That is correct, Mr. Secretary?

Secretary ORR. I have just been informed that our people are not aware of a shortfall in 1983.

Senator WARNER. All right. Are you speaking of the MILSTAR?

Secretary ORR. Yes, sir.

Senator WARNER. All right. We will check our records here. But we are now on the question of the ATB and that funding cycle——

Secretary ORR. I beg your pardon. The ATB very definitely, we are planning to go right ahead with the funding cycle that was originally set forth. We are pressing on as rapidly as R. & D. will permit to get that plane. The preference which I strongly had was for the B–1 because we felt the ATB was years away, but we are still pressing on with R. & D. and we plan to bring that bomber in when it is available.

Senator WARNER. My time is up.

Senator GOLDWATER. Thank you.

Senator Exon?

Senator EXON. Thank you, Mr. Chairman.

TITANS

Mr. Secretary, I want to go first to the matter of the Titans. I assume that when we are talking about unilateral disarmament without any response from the Soviet Union, right in the middle of a time when we are entering into arms negotiations with the Soviets, that our arms control people were consulted by the administration.

Particularly, I speak of Dr. Rostow and General Rowny with regard to the decision by the administration to pull out the Titans.

Secretary ORR. Senator, the consultation with the arms people is handled in the Department of Defense above my level. But I can tell you this: That the Assistant Secretary of Defense, Mr. Perle, and the Under Secretary, Mr. Fred Iklé, both cochaired meetings of intergroup discussions on arms control which had participants from the various governmental agencies involved in arms control.

I myself am not a party to those discussions. I do not sit on those intergroup agencies, and I did not consult on it. But both the Under Secretary and the Assistant Secretary were fully privy to all the financial decisions and procedural decisions regarding the Titan.

Senator EXON. You cannot tell me in this committee then whether or not Dr. Rostow and General Rowny approved the what I consider to be the premature pulling out of the Titan?

Secretary ORR. Senator, that is simply information I do not have.

Senator EXON. General, I would like to go into this matter of the Titans a little bit more. I guess that after the experience that we had during the Presidential campaign about the "window of vulnerability"—I assume you have heard of that phrase before?

General ALLEN. Yes, sir, I have heard of that.

Senator EXON. I want to go into that just a little bit. Are you enthusiastic about the pulling out of the Titans and the losing of that megatonnage, which I think amounts to about 468 megatons, before our MX is totally in place? Because I would remind you—correct me if I am wrong—the original plan was to only phase out the Titans as we brought simultaneously online the MX?

General ALLEN. Yes, sir, you are correct. That was our earlier plan. The decision on the Titan we made considered a number of factors. Not insignificant among those factors was the desire to reduce outlays in the budget as we were taking various other actions in the strategic modernization program.

There is some $500 million saved over the 5-year period by this earlier reduction of Titan. The decision on Titan and the B-52D's were based on the fact that these are the older weapon systems. The Titan II, while contributing heavily in megatonnage, still is launched from a relatively soft silo; that is, its survivability is not——

VULNERABILITY

Senator EXON. Excuse me. As soft as the MX will be when you get through putting it in the Minuteman silos?

General ALLEN. Well, I think let us say that they are both vulnerable. They, all of them, are vulnerable to Soviet accurate warheads.

Senator EXON. Highly vulnerable.

General ALLEN. Yes, sir, I think "highly" is probably a good word. Of them, the Titan has the highest vulnerability. So the contributions of Titans are not very large in terms of weapons; they are in terms of megatonnage. We examined the effects of various options which were open to us. We concluded that partly because of age, partly because of some of the safety concerns, partly because of the time that was going to be required in executing the retirement, that this would be an acceptable course of action.

Senator EXON. We heard that the other day from Mr. Carlucci with regard to the famed $500 million savings over 5 years, which seems to me not a very sound argument if we are concerned about the window of vulnerability. There is no question, I would hope, that we would all understand the Titans make up at the present time about one-third of our total megatonnage now in place; is that correct?

General ALLEN. Yes; they are very high megatonnage weapons.

Senator EXON. So what we are doing is unilaterally disarming at the same time that the Soviet Union is not taking out any of their systems.

In fact, it is quite well substantiated right now that the Soviet Union is aiming about 12 additional warheads a month at us or our allies. And this administration is recommending to save a pittance compared with the $216 billion budget—100 million this year, starting October 1, to take the Titans out.

I guess that I understand you are under some constraints here, General. But I just cannot imagine that that is sound military planning if we are concerned about the window of vulnerability.

Do you not agree that this action is going to throw open the window of vulnerability which we heard so much about during the recent campaign?

General ALLEN. Well, no, sir, I really do not, because I think we are adding even during the same period weapons which will not allow a decrease to take place. The weapons which will be particularly affected are the air-launched cruise missiles which will be added onto the B-52's during this coming year.

Senator EXON. So you are telling me that in your judgment pulling out these 9-megaton Titans will not decrease our capacity to retaliate against a first strike?

RETALIATORY CAPABILITY

General ALLEN. No; clearly it does. As you well know, these weapons are unique and, because of their high megatonnage, add to the U.S. retaliatory capability in a particular way.

What I am saying is that I do not think our overall capability will be reduced during that time period because we will be adding in other weapons, weapons of a different character, but other weapons.

Senator EXON. Have you, in making those calculations General, taken into account the continued buildup by the Soviet Union in their ability to deliver missiles, which I just said are coming online at an estimated 12 additional each month?

General ALLEN. Certainly, our biggest concern is the rate of improvement of the Soviet MIRV'd ICBM.

Senator EXON. And at the same time, we are unilaterally disarming and reducing our megatonnage?

General ALLEN. At the same time, we are retiring our Titan II's, yes, sir.

Senator EXON. And you do not think the window of vulnerability is being thrown open wider by the combination of those actions?

General ALLEN. Wider than it would be if we did not retire them?

Senator EXON. Yes.

General ALLEN. Yes, sir. There is no question. Titans have some value in our retaliatory capability.

Senator EXON. Therefore, we have established here upon the public record what Assistant Secretary McCoy told me in my office this week: that indeed, in his opinion, the retirement of the Titans on the schedule announced by the administration would throw open further the window of vulnerability? Is that essentially correct?

General ALLEN. I am still, if I may, Senator, and I do not mean to be——

Senator EXON. Yes, certainly.

General ALLEN [continuing]. Argumentative but——

Senator EXON. Well, I want to get at this, General. We dance around these things, but we never lay it out on the line. There were people sitting around this table when Jimmy Carter was President of the United States who were pounding on the table, telling us that we had a window of vulnerability and we are almost all Communists unless we went all-out. That seems to have all changed, and I think it is time to be laid out very clear on the record.

General ALLEN. Yes, sir. If costs were not an issue, if safety was not an issue, and if there were some other factors that were not really part of this, then clearly retaining the Titans would be a good thing.

Senator EXON. Oh, safety is an issue with the Titans?

General ALLEN. Safety is an issue, yes, sir.

Senator EXON. Not what I was told by your people at SAC in a recent briefing I received.

General ALLEN. Yes, sir, I know. What you have been told is, of course, correct. And that is, following the accident at Damascus and the prior one in 1978, we have done an exhaustive examination of the system and have in work a whole set of changes which we are confident will allow us to operate that system safely over the next years.

Nevertheless, safety is an issue because there is concern about the safety of the system and it is a more difficult system to handle than the solid propellant system.

Senator EXON. Well, we understand that, the liquid propellant. But is it not generally true, General, that the difficulties we have had in those two incidents with the Titan were basically because of Air Force fumbling?

General ALLEN. Yes, sir. I wish you would say it a little differently, but I think that is——

Senator EXON. Well, you can rephrase it any way you want, sir. [Laughter.]

General ALLEN. Yes, sir. Personal error was certainly the cause of those accidents.

Now, since cost is a part of the issue and we are attempting to build a strategic retaliatory capability as effectively as we know how with the taxpayers' dollars, one of the options which is open to us and one that we are working on is increasing the rate of production of cruise missiles.

And part of the budget before you includes an increase in the rate of that production. For these same moneys, we can add more weapons on line with cruise missiles which have certain advantages over the Titan.

Senator EXON. Well, Mr. Chairman, my time is up. I just wanted to get on the record the fact that we have at the present time, according to my figures, about 924 megatons in the Minuteman II and III and about 468 megatons in the Titans.

The administration is proposing, in my opinion, a premature reduction of about one-third of our total megatonnage in ICBM's.

I thank the Chairman.

Senator GOLDWATER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

I would like to continue Senator Exon's line of questioning. Senator Exon is a pretty straightforward guy, and I would like to see if we cannot get some answers which are as straightforward as his questions.

WINDOW OF VULNERABILITY

I think you answered this question, but I am going to ask you again. Is it not true that the window of vulnerability is going to be wider because of the retirement of the Titans and the B–52's?

General ALLEN. As we weigh the balance between the United States and the Soviet Union over the next few years, there can be no question that retiring weapons as contrasted to not retiring them shifts that in the wrong direction. That is right.

Senator LEVIN. Do I understand that to be "yes"?

General ALLEN. Yes.

Senator LEVIN. So the American people have been told that we have a window of vulnerability out there, they feel very vulnerable, I want you to know, and now you are giving us a proposal which opens that window wider. Is that not true?

General ALLEN. Well, you know, you keep——

Senator LEVIN. Well, I am going to keep repeating it until your "Yes" comes out at more than a whisper. Now, my voice is at a whisper because I had some throat surgery. But I would like to hear your whispered "Yes" a full-throated "Yes," because that is what the answer seems to me absolutely is. So now when you whispered "Yes" a moment ago, can we have that loud enough so that we can all hear it?

General ALLEN. Well, no, I really will have to try again to explain to you——

Senator LEVIN. I know why. I understand why you are doing it. The question is whether you are doing it. The question is whether you are doing it. And is it not as clear as we are sitting here that we are reducing megatonnage by the retirement of the B–52's and the Titan missiles and that that opens wider the window of vulnerability?

General ALLEN. No.

Senator LEVIN. Well, I thought I just heard "Yes" a moment ago, kind of whispered.

General ALLEN. I am trying to make the distinction between the following two points. One is that when you remove systems from a

balance, then clearly you are reducing the favorable characteristic of that balance. But that is not all that we have done. We have a strategic modernization program which contains a number of elements.

Senator LEVIN. And they were there, too, last year, were they not?

General ALLEN. We have, for example, increased the ALCM production rate.

Senator LEVIN. General, I understand about the ALCM's, and that is not Senator Exon's question, in all fairness, and it is not my question. The question is whether we are opening that window, of vulnerability wider by the retirement of the B–52's and the Titan missiles.

General ALLEN. Wider than we would if we did not retire them?

Senator LEVIN. Absolutely.

General ALLEN. Yes.

Senator LEVIN. And you are proposing to retire them?

General ALLEN. Yes, sir.

Senator LEVIN. And therefore, you are proposing to open the window wider than it would have been if you did not propose this course of action?

General ALLEN. And we are proposing other measures as well.

Senator LEVIN. I understand. But if you did not propose the retirement, the window would be narrower, would it not?

General ALLEN. Yes, sir.

Senator LEVIN. Can you say that a little more loudly?

General ALLEN. Yes, sir. [Laughter.]

Senator LEVIN. Now, at the same time that you are opening the window wider by this proposed course of action, and you are saying, "Oh, well, it can be justified by cost and safety." you are telling us that the threat of this window is so great that we have to continue to build an MX missile even though we do not know how to base it—in other words the threat of the window is so intense, we will be so vulnerable, that we are going to build a missile before we know how to base the darned thing, but it is not such a threat that we do not unilaterally reduce our megatonnage with the early retirement of the B–52's and the Titan missiles. I do not think that makes any coherent or logical sense. I think it is totally inconsistent. You cannot have it both ways.

My question relative to the MX missile is this: Are we still considering an air-launched missile?

General ALLEN. There is a program for a continuous patrol aircraft.

Senator LEVIN. And will the MX missile that we are now building fit into that continuous patrol aircraft?

General ALLEN. The aircraft has not been designed, but presumably it would be designed so that it could.

Senator LEVIN. All right. The presently configured missile that we are now building will fit in the possible continuous patrol aircraft that you are looking at?

General ALLEN. Yes, sir.

Senator LEVIN. It can carry that much weight?

General ALLEN. Yes, sir.

DEEP-BASE BASING MODE

Senator LEVIN. And is the same thing true with the deep-base basing mode?

General ALLEN. Yes; we are examining the deep-base mode.

Senator LEVIN. No, but will this missile fit into that basing mode?

General ALLEN. Yes, sir.

Senator LEVIN. Without any changes?

General ALLEN. We really have not gone far enough in those studies. I would guess there would be some changes to accommodate to those particular needs, the transport and all that they need to go on. But basically, the missile as it is configured in the canister is suitable without a lot of modification for either.

Senator LEVIN. And perhaps would it not also have to be changed perhaps in some respects to fit into the aircraft if we go that direction?

General ALLEN. Well, I am sure there will be changes, yes, sir.

Senator LEVIN. Can you estimate for us how much those changes could cost us? I mean, after all, General, we are being asked here to proceed with a missile before we know how it is going to be based. Now we are told there could be three possible basing modes, maybe more, that the missile might have to be changed depending on the basing mode. So the question is: Do we have the cart before the horse, or do we have the missile before the canister? And in order to know whether or not we should postpone procurement of the MX, we would have to know how much might it cost us to change the missile to a different design in the event we went with either the aircraft or deep-silo basing modes.

Can you give us an estimate of what those costs might be?

General ALLEN. I cannot now. I will certainly provide them to you for the record, sir.

Senator LEVIN. Do those records exist?

General ALLEN. I think we can probably generate them. I doubt if they exist. And the reason, of course, is that neither the continuous patrol aircraft nor the deep underground basing has really been subjected to the study it needs to be to have those definitions.

Senator LEVIN. Are they being studied that way now?

General ALLEN. Well, the continuous patrol aircraft is not, because it was contained in the 1982 budget and Congress put a fence around that. And that is being discussed with the Congress now.

Senator LEVIN. Would you want to study that? Do you want to have that capability in the budget?

General ALLEN. Yes, sir. We think that additional study of that is required.

Senator LEVIN. And before we know how much change would have to be made in the missile, we would have to know what that aircraft would look like?

General ALLEN. Well, to some degree, yes, sir. We could, however, I think, make a general kind of estimate for you as to what those kinds of costs would be.

Senator LEVIN. And you said those estimates now exist, or you would have to make them?

General ALLEN. I think we can make them quickly because we have done those kinds of things before.

Senator LEVIN. All right. If you would make them for the record, that would be helpful.

[The information follows:]

BASING COSTS FOR MX OPTIONS

The MX missile was specifically designed to be compatible with a variety of basing modes, including deceptive concepts. Therefore, we do not believe that any of the three principal basing modes under consideration at this time will require significant change to the missile design.

Senator LEVIN. Are you able to tell us on the record how many missiles, how many warheads exist in our inventory?

General ALLEN. No, sir. But we can attempt to provide some kind of answer.

Senator LEVIN. Is that a nonclassified figure, do you know?

General ALLEN. I believe it is a classified figure, but I am not certain.

Senator LEVIN. So as far as you know, there is no nonclassified way that we can tell the American people how many warheads we have in our inventory?

General ALLEN. Well, I do not know of it. We can, again, try to see what we can do for the record.

Senator LEVIN. I think that would be helpful, in order to discuss nuclear strategy in a way in which I think we are obligated to, that we have some figure that we can discuss with the American people relative to how many nuclear warheads we have and the Russians have.

MARITIME SUPREMACY

One quick question on the supremacy issue. You have been asked already about whether there is a concern about this maritime supremacy doctrine. You indicated that in 1983 you thought you got a fair shake, there was not any disproportional loss to the Air Force. Is that true in the outyears, too?

Senator GOLDWATER. Would the Senator yield for just a moment?

Senator LEVIN. Surely.

Senator GOLDWATER. This vote is on the Weicker motion to table the motion to reconsider the vote yesterday by which the second committee amendment was tabled.

Senator LEVIN. Thank you for the clarification, Mr. Chairman. [Laughter.]

Senator GOLDWATER. If you can get a window of vulnerability wider than that——

[Laughter.]

Senator LEVIN. That is almost as clear as our MX doctrine, Mr. Chairman.

Secretary ORR. Senator, you were asking?

Senator LEVIN. The out years, you are also satisfied?

Secretary ORR. The out years are even, to use a parochial sense, more satisfying because there is a spike in the Navy's TOA, the two carriers that were in this year, and that are presently scheduled to reduce in the out years.

AIR POWER SUPREMACY

Senator LEVIN. All right. do we seek air power supremacy, we and our allies, over the Soviets and their allies? Is that our doctrine, or will we settle for equality and parity in air power?

General ALLEN. No, we do not seek air supremacy in the sense of believing that the right way to construct our forces is to match numerically the Soviet Warsaw Pact forces.

Senator LEVIN. How would you phrase our goal? We now say that we want maritime supremacy. How would you phrase our goal in terms of air power?

General ALLEN. Parity associated with the missions which we have to do. This may, of course, include local superiority.

Senator LEVIN. And in terms of nuclear superiority, strategic superiority, is that our goal, or do we seek parity there?

General ALLEN. The goal of this administration has been stated to seek parity.

Senator LEVIN. Let me see if I can add up all of the parities and the supremacies here and find out where we are. I asked the Secretary of the Army whether we seek supremacy. He says no, we seek parity. The Secretary of the Air Force, I presume, agrees with the General that we seek air power parity. Is that fair, Mr. Secretary?

Secretary ORR. That is fair.

Senator LEVIN. In the area of the Navy we seek supremacy. Now, when I add up two parities and a supremacy, I come up with an overall supremacy. Would you agree with that addition?

Secretary ORR. I think I would say, Senator, that it is our hope if we have to fight that we would fight elsewhere and not on our own shores, and that requires control of the sea lanes.

Senator LEVIN. I am not arguing here now whether we should have supremacy or not. What I am trying to do is find out whether or not we seek overall supremacy militarily or whether or not we seek parity. And since the Air Force seeks parity and the the Army seeks parity and the Navy seeks supremacy, that adds up in my calculus to be overall supremacy. Is there any other way you can add that up?

Secretary ORR. Well, basically, I only speak for the Air Force, and that is parity.

Senator LEVIN. My time is up. Thank you, Mr. Chairman.

Senator GOLDWATER. Thank you.

Senator Nunn?

Senator NUNN. Thank you, Mr. Chairman.

MARITIME STRATEGY

General Allen, on this question of maritime, we talked about this briefly last year, and then Secretary Carlucci in his statement said in explaining his definition of maritime strategy, that this envisions a greater Air Force role with our Navy.

Could you tell us what is the greater Air Force role under his concept? Has it increased since last year? What is your understanding of how the Air Force fits into the maritime strategy?

General ALLEN. It is the contribution of land-based air to the protection of the sea lanes. Examples of things that are being done now are the AWACS aircraft and the F–15's in Iceland for the pro-

tection of the so-called G.I.U.K. gap. It is not so easily done yet because of the numbers involved, but is is also the potential use of E-3A aircraft to protect the fleet when operating in the eastern Med. It is the use of E-3A aircraft in fleet operations in the Arabian gulf or the Arabian Sea as operations there might require.

It is also the use of aircraft with air-to-surface weapons that would be able to contribute to support of the Navy. We practice those missions. We have certain capabilities, but we lack the adequate weapons to do the job. So our emphasis has been on finding such weapons. The MRASM is a candidate for that kind of weapon.

Senator NUNN. Well, I have been told informally and off the record by various people in the Air Force that the Air Force could do much more in the overall maritime strategy field if called upon and if properly coordinated from the top.

Do you agree with that more or less informal, unattributable kind of assessment? [Laughter.]

General ALLEN. Well, I do agree. But, as I say, I do want to caution that the one area where I know we can do more but we do have some weapon development to do, and that is in the actual attack of shipping.

Senator NUNN. The actual?

General ALLEN. The attack of shipping.

Senator NUNN. Are you getting the funding you need in this budget to do that? If we wanted to set out and give the Air Force a greater role in maritime strategy, what else would need to be added to this budget? And you can supplement your answer for the record, if you would like.

General ALLEN. Yes, sir. Let me answer it quickly by saying that I think the funding in the budget does not limit us as much as the fact that we have not found the answers as readily as we would like to find them. For example, we have worked with Harpoon for several years, and are not really convinced that it is worth the development cost to install Harpoon on many Air Force aircraft.

Senator NUNN. Well, will you give us for the record—I am not asking that you make a policy recommendation, but simply give us the record, if this committee were to try to get the Air Force more involved in strategy, what additional items that could be effectively spent now could be added to this budget.

General ALLEN. Yes, sir, we shall do that.

[The information follows:]

MARITIME STRATEGY

As you know this is a complex matter which cuts across roles and missions, weapons and budgets. The Air Force has a maritime collateral mission and cooperates closely with the Navy in fulfilling this mission. Both JCS and DOD directives address collateral functions and they preclude individual Services from using a collateral mission as justification for establishing additional force requirements.

Thus, the aircraft we use for collateral maritime missions must be designated and equipped for primary Air Force missions. This fact requires that we be very selective in the modification of our aircraft and the development and procurement of weapons designed for primarily maritime missions. For example, a B-52 has to be nuclear and conventional strike capable to satisfy current primary mission tasking. Agreed collateral missions are accommodated within the existing configurations and if expanded roles are assigned to current and future forces, additional aircraft modifications and weapons procurement would be required.

The Air Force is presently studying the weapon/aircraft mix to conduct maritime operations, and there are several weapons that could be developed for expanded maritime roles as ship attack. To answer your question more directly, if additional TOA were made available for use in the maritime area, it could be used to fund a stand-off munition useful both for existing primary missions and for ship attack.

Senator NUNN. And perhaps you ought to identify the things that are in the budget that are already aimed in that direction, too, so that we have both together.

I think this is an area of enormous potential that has been underutilized, and I want to do everything I can to push it.

I do think we need maritime strategy that calls for naval superiority. We have had it for many years, and we are losing it. That is what a lot of people overlook when they talk about maritime superiority. It is not something new, it is something we have enjoyed but have virtually lost. The question is as to how much. And if we are going to regain it, in my view it is going to take the vital involvement of the Air Force much more than ever before.

General ALLEN. And we, of course, are very sensitive to this. For example, we have been going through these fairly painful airlift decisions, and we are very much aware of the fact that airlift contributions, which are so critical during the early stages of conflict are, of course, dwarfed by the sealift requirements which have to be met if the force is to be sustained. And sealift must depend on sealanes which can be controlled by the United States.

Senator NUNN. Mr. Chairman, I guess we are running out of time. And perhaps I can get one more question in.

Senator GOLDWATER. Well, I am not going to go vote. I think the window might get a little bit wider. [Laughter.]

JOINT STRATEGIC PLANNING DOCUMENT

Senator NUNN. I will just ask you this question briefly and hope to come back. Did you participate in what was known as—I do not know what the formal name of it is now—the joint strategy proposal? It used to be called JSOP.

General ALLEN. It used to be the JSOP. [It is now the JSPD, the Joint Strategic Planning Document]. And, yes, sir, as a member of the Joint Chiefs, we are responsible for that document.

Senator NUNN. Did you participate in the one that was recently leaked into the newspaper? I am not asking you about the leak. I am asking you about the——

[Laughter.]

General ALLEN. The current JSPD is a document for which I have had two responsibilities. One is the Air Force introduction of the Air Force planning data into the JCS, and the second is the output of the document for the JCS.

Senator NUNN. Do you consider that a serious effort?

General ALLEN. Yes, sir, I consider it a serious planning effort. It is not a serious effort aimed at a budget, however.

Senator NUNN. If it is not aimed at a budget, what is it aimed at?

General ALLEN. It is aimed at defining, in a period 7 years into the future, what the forces should be if war were to be fought that year. It provides a planning base to which one can compare nearer

term programs and capabilities and air ability to meet the JSPD objectives.

Senator NUNN. It does have implications in the military requirements that are necessary in the budgets that are coming in order to get that capability in 10 years. You cannot get the capability without putting it in the budget, can you?

General ALLEN. No, sir, you cannot.

Senator NUNN. I do not see how then it is unrelated to budget. It may not relate to this year's budget.

General ALLEN. I should not have said "unrelated to budget," but it has never been used as a document for the formation of a budget. It has been used as a base document by the military side of the House for the derivation of strategy and the composition of force structure.

Senator NUNN. Since you consider it a serious effort, I would assume that you would hope that those that it is given to would treat it seriously, would you not?

General ALLEN. Except I do not believe it has ever been viewed before, and it was not viewed this time in the case at issue, as a document against which a budget should be——

Senator NUNN. Well, I am not asking that, though. I mean I am asking if people who look at it, you would hope would look at it carefully, would you not?

General ALLEN. Yes, sir.

Senator NUNN. Otherwise, there is no need to do it; right?

General ALLEN. That is correct.

Senator NUNN. Thank you, Mr. Chairman.

Senator GOLDWATER. Thank you, Senator.

F–15E AND F–16E

General, last year there was some consideration within the Air Force of buying both the F–15E and the F–16E. I understand that it is no longer the case that the Air Force currently plans to buy one or the other but not both. Could you confirm that for us and give us your assurance that the competition between the two aircraft will be based on sufficient flight time to assure the best choice?

General ALLEN. The Air Force has a need for a deep interdiction aircraft, one that will supplement and ultimately perhaps replace the F–111, even though the candidates we are looking at clearly will still not have the range and performance of the F–111.

We are examining the F–16E and derivatives of the F–15 as candidates for that mission. The F–16 with the cranked-arrow wing will begin flying this summer. An F–15 with much of the missionized air-to-surface capabilities will also be flying. We will do a comparative evaluation of those aircraft.

The only concern I have with regard to giving you the assurance you want is that the final decision will be based on several things. One of them, of course, is the aerodynamic performance of those aircraft. In the case of the F–16E, that is the main purpose of testing the cranked-arrow wing, to get that data good and solid. Then, the remainder of the decision is clearly based on what we decide to place in either aircraft in terms of avionics.

It is not necessary to fly all configurations of avionics, but we will have sufficient data to have a solid comparative evaluation and be able to make a competitive judgment on an interdiction aircraft, yes, sir.

Senator GOLDWATER. I believe you started last year a study of the F-15E as a ground support aircraft. Is that study continuing?

General ALLEN. We are continuing to exercise that idea. I guess I am not sure about the particular study. But, yes, we are continuing to look at a two-seat F-15 which has particular missionization to permit it to do the interdiction role.

Senator GOLDWATER. That would include the skin tank, the conformal tanks? The outside tanks, I am talking about.

General ALLEN. Yes, sir. The conformal tanks are really, of course, getting to be such a very fine aspect of the F-15 that we are thinking about them for many of its missions. But, we would need the range afforded by those conformal tanks.

Secretary ORR. Senator, may I say something?

Senator GOLDWATER. Yes, certainly.

Secretary ORR. It was 1 year and 2 weeks ago I sat in this chair, Mr. Chairman, and Senator Goldwater told me, do not make an air-to-ground machine out of a good air-to-air fighter, that has been the course of the Air Force ever since he had known it. I have not forgotten that message that came in my confirmation hearing.

Senator GOLDWATER. Don't ever forget it. [Laughter.]

I have seen too many good interceptor aircraft ruined by trying to make a ground support bird out of it. In fact, in my life we have only built two close air support aircraft: one was in 1937 or 1938; the other one is the A-10. I do not like to see this, but I know that you are bound and determined, along with McDonnell Douglas, to get some of these birds.

Secretary ORR. I just wanted you to know I have not forgotten your message.

Senator GOLDWATER. I just hope you do not.

LANTIRN SYSTEM

On page 18 you talk about the Lantirn system. Now, as you know, that system has gone up tremendously in cost. Do you have the figure of the present cost of the Lantirn?

General ALLEN. Yes, sir, I have it. The 1983 request is $107.8 million in development, and $15.7 million in procurement.

Senator GOLDWATER. $15.7 million?

General ALLEN. Yes, sir.

Senator GOLDWATER. What does that work out per cockpit, do you have any idea?

Secretary ORR. I do not have that, and I am not sure our data here at the table shows that. But we can certainly get that information for you.

Senator GOLDWATER. I would like to have that for the record, because I have a figure of up around $6 million per cockpit.

[The information follows:]

LANTIRN COST

The unit flyaway cost for the Lantirn pod set of a navigation pod and a targeting pod is $1.5M in fiscal year 1980 constant dollars. The estimate of $6.1M per cockpit is the unit acquisition cost in then year dollars encompassing all research and development (R. & D.) and procurement costs for both the navigation and targeting pod, the R. & D. costs for aircraft integration, and R. & D. costs for heads-up-display.

The following comparison provides a summary of two different ways of representing unit cost of the pod set based on a total quantity buy of 300:

[In millions of dollars]

	Fiscal year 1980 constant	Then year
Unit flyaway	$1.5	$2.6
Unit acquisition	3.8	6.1

Senator GOLDWATER. Now, are you doing anything to get the cost of that down?

General ALLEN. Yes, sir. The $6 million is, if I recall correctly, program cost then-year dollars. For comparison, the A-10 cost, I think, using the same calculations runs around $18 million. The increase in the cost is certainly a great concern, Senator.

Senator GOLDWATER. Are you working to get that down?

General ALLEN. Yes, sir.

Senator GOLDWATER. The Lantirn program comes under the tactical warfare subcommittee, which I am chairman of, and I can tell you we are not going to buy some of these programs that are abnormally high. If you are going to want night capability in these fighters, you had better get the contractor to realize that they have a little obstacle over here.

Now, I hope the Air Force will stay with their decision to buy the C-5 or a more rapid way to deliver a rapid deployment force. I know there is going to be a lot of political pressure put on you, and I was one of the leaders in the fight to get the CX. But in my opinion, the CX will not do the job that the C-5 will do. So do not back off.

Secretary ORR. Thank you, Mr. Chairman. We will work very hard on that.

Senator GOLDWATER. I am going to have to leave. I hate to leave, but I have got a granddaughter coming in for lunch. So I am going to turn this chairmanship over to Senator Quayle, and you can run it any way you want. Just do not get that window of vulnerability open again. [Laughter.]

It took our friends on the other side of the aisle 20 years to build that window. And it is going to take longer than 1 year to close it.

Senator QUAYLE [presiding]. Thank you, Mr. Chairman. Have a fine lunch.

NAVSTAR GPS

Let me just start with a pet project of mine on which we have had a lot of discussion on in the last year. I know that General Allen has been very involved in trying to make sure that an accommodation was made, and that program is the GPS.

How essential is the GPS now, in your current thinking?

General ALLEN. It is essential. It is very important. We are continuing to progress down a road where NAVSTAR GPS is an essential aspect of the war-fighting capability of all three services, with a large number of terminals envisioned and a large range of applications for that precise navigation capability.

Senator QUAYLE. Now, do all the services concur with that?

General ALLEN. Yes, sir.

Senator QUAYLE. They all concur with that. Now, what kind of a priority are we going to give GPS this time around? I am sure you remember the debate——

General ALLEN. Oh, yes.

Senator QUAYLE [continuing]. Particularly in the House of Representatives, where the GPS was put on a low priority. As a matter of fact, there were some statements and letters floating around that if you want to cut somewhere, here would be a good place to cut, and every one of the services always had it at the very bottom. So, therefore, when the House of Representatives was looking for a place to cut, they just lop it off. And so, when we had a conference over this issue, GPS was one of the two items that came down to the final nutcracking stage.

So I just wonder, where does GPS stand as far as a priority with you?

General ALLEN. It will stay high. We recognize that we made an error in how we went about that last year, and we are not going to make that error again.

Senator QUAYLE. Well, I appreciate that and look forward to assisting you in any way I can.

Is there enough funding in the request? What do you have in there now? $15 million?

General ALLEN. GPS, no. We have $224.9 million in the 1983 request.

Secretary ORR. That is the start, Mr. Chairman, of a block buy.

Senator QUAYLE. Thank you. We have it as a priority. What did you say the funding was?

General ALLEN. $224.9 million.

MISSILE PROGRAM OVERRUNS

Senator QUAYLE. $224.9 million. Thank you. Yesterday we had a number of letters to Chairman Tower, one from the Department of the Air Force and one from the Army and the Navy, concerning cost growth and complying with the Nunn amendment. I notice that of the 21 programs encountering overruns, 12 of them were missile programs.

Is there any particular pattern in our procurement practice with missiles that leads to cost overruns?

Secretary ORR. I think so. I am going to let the General speak more.

First, let me say that two of those overruns in the Air Force are rather peculiar. The F-15 and the F-16 are overruns simply because we increased the quantity of the buy, which is not a cost overrun in the normal sense. Under the terms of the amendment—

the terms of our reporting—we have to report them as an increase in costs.

Insofar as missiles—and again I will call on General Allen—but I would say yes, I think missiles are far more subject to cost overruns than many things because you are on the cutting edge of technology; you are trying to get a missile that will go around and over a hill and do something at the end of a 4,000-mile run; and you have got to have the software—you have got to have the engine and all of those things.

Senator QUAYLE. What kind of time constraints are you under?

Secretary ORR. Yours.

Senator QUAYLE. All right. In other words, you are saying that in respect to the cost overruns with missiles, missiles are a unique problem and this is one of the reasons that one might as well anticipate cost overruns?

Secretary ORR. Let me ask General Allen to speak in that area.

Senator QUAYLE. If that is the case, what can we do further to get at this very sensitive cost growth problem? It is a terrible publicity problem. Many people in the antidefense community harp on that time and time again, and they are right. I mean you cannot justify it. I cannot justify it, I do not think anybody is going to justify it; but it happens and it looks like it is getting worse.

General ALLEN. First of all, we have to fully understand the causes for the increases. As the Secretary said, sometimes in the format of the reporting they are simply caused by increasing the anticipated number of units to be bought.

Sometimes they are caused by other rate-sensitive effects; that is, by reducing a rate and causing the unit price to go up and exceed a threshold.

Sometimes, of course, they are just technical problems or poor management that cause us to increase it. It is the latter where we have clearly to exercise very tight control and to insure that we do the best job we know how.

We have put into effect a large number of management actions that are intended to improve our cost control. Clearly, if we can get into a period of time when the inflation rate is not high and not increasing each year, we will be able to do a much better job with management programs.

We are coming out of a period of time in which we were competing for every facility and bit of strategic material of the contractor and we will do better when we are out of that situation.

Senator QUAYLE. Do you think that there is further action that Congress could take to prevent or to correct this? They had the Nunn amendment last year, but do you think perhaps we ought to go a little bit further in what that outlines?

General ALLEN. I think Congress can do several things. One of them, of course, is the proper role of holding our feet to the fire when there are indications of poor management.

But another thing that Congress can do, and one that I think we are making a good deal of progress on, is encouraging and allowing us to make longer term purchase arrangements. We really do get into very inefficient and very hard to control purchase arrangements when we do it 1 year at a time and on a full-funding basis.

The multiyear procurement which Congress has so far been encouraging and which looks very good on a few programs, will be a big help to making programs that are stable, more stable, allowing an economically sensible system of procuring materials and subsystems.

Senator QUAYLE. What about the actual profit to the contractor? On most of these cost overruns, do you see an actual increase in the profit once the cost growth is identified and paid, or is it pretty much at cost? Where is the profit margin?

General ALLEN. Sir, we have no contracts these days that I am aware of that are what used to be called the cost-plus, fixed-fee contracts. Those are just not done any more in any of these programs that we are talking about.

But rather, we use various forms of contracts wherein the fee is determined by an incentive structure which rewards the contractor for good performance and underestimating and penalizes him for exceeding the target cost of the contract. Those penalties, depending on the nature of the contract, can be severe and can cause him to lose money on the contract.

Now, the problem is that many of these overruns you see are not of that sort of overrun. They are where the Government has made either changes to the contract or additional ordering.

Senator QUAYLE. The GAO was before our committee earlier this week and were not quite as comfortable as you are with the question of whether a profit is realized on the overrun. They, as a matter of fact, are studying one in particular, the AH–64 helicopter, to see whether in fact there might be an incentive to have the cost overruns if additional profits would be realized.

MIG-23'S IN CUBA

Let me switch gears. There has been a lot of publicity about the Mig-23's in Cuba. What are the military implications of that?

General ALLEN. Well, the primary concern, is simply the introduction of additional firstline fighters into a locale which is only 90 miles away. The Mig-23 is a substantially more competent airplane than is the Mig-21, and it simply indicates the intentions which the Soviets seem to have of supplying more and more and better and better arms to Cuba. And that worries us very much, not only for whatever concerns one has about any actions they may take against the United States, but about the fact that they have such a clear record and propensity for exporting their revolutionary enthusiasms to other countries in Latin America.

Senator QUAYLE. Can you put this in a timeframe for us, the increase in the interdiction capability, the new military equipment in Cuba supplied by the Soviet Union? What is the caliber of equipment and the potential for escalation? Can you put that in perspective for us?

General ALLEN. I suspect that any accurate information should be given in a closed session. But in general, during the last year there has been historically high amounts of military materiel provided to Cuba by the Soviets.

Senator QUAYLE. And it is increasing?

General ALLEN. It is a trend which is of great concern.

Senator QUAYLE. And the increase has been significant in the last, say, 12 months or the last couple of years.

General ALLEN. Yes.

Senator QUAYLE. We would be concerned, obviously, with one plane that is close to our shores, since we have been concerned about Cuba ever since 1958. But what I am trying to do is to see if there is a pattern. And if there is a pattern, is it escalating? And if so, by what degree?

I know we cannot get too specific because some of the information is classified, but we have to communicate with the Amercian public and tell them what is going on down there in unclassified terms. And so I would like to try to obtain from you as much information as I possibly can in open session.

General ALLEN. The trend is bad in that the Soviets have introduced more equipment recently. Any way that one draws the curve over several years, it shows that current rates are high.

Senator QUAYLE. And you expect that current rates will continue, or do you think that you see any possibility of them changing?

General ALLEN. Oh, I do not know how to predict that. Clearly, the United States would like very much to persuade the Soviets not to continue to do that.

B–1 AND STEALTH

Senator QUAYLE. Perhaps this question has already been asked about the B–1 and Stealth. Can you tell us where we stand on those two programs, particularly the Stealth program?

General ALLEN. Well, let me take the B–1 first. The B–1 contract has been written with Rockwell. It will be written with General Electric shortly. We have a sound structure and a sound beginning of the program and have instituted extraordinary management procedures to insure that the program is managed to the very rigid cost-and-schedule specifications that have been laid down for it. Whereas it is a very difficult job, I am very satisfied we are off to the right beginning and that we will be able to execute the program as we have said we would.

Work on the advanced technology aircraft is proceeding. There is continued technical knowledge which is in the basic nature of increased understanding of the technology and those factors which would be required to design an airplane for production. And, I think that is going well. We believe it continues to be funded at a rate which is close to the maximum that is truly sensible, and we are looking for every opportunity we have to bring the program along more quickly if the technology permits.

Secretary ORR. Senator, may I add, just as a note of interest, that we are starting to make parts for the B–1B, and I brought with me cuttings of titanium and aluminum from the first parts for the first production model of the first B–1B. So we are moving.

Senator QUAYLE. I yield to Senator Cannon.

Senator CANNON. Thank you.

THUNDERBIRD ACCIDENT

Mr. Secretary, all of us last month were saddened and shocked at the tragic accident of the Thunderbirds. And I would like to ask

you first, has the accident report been completed? If not, when do you expect that it will be completed?

Secretary ORR. The accident report has not been competed.

General, will it be 4 weeks more?

General ALLEN. I do not know the estimate. But that is as good as——

Senator ORR. A reasonable estimate might be another 4 weeks. I did talk to General Creech about it yesterday, and he assured me that it is going forward under very confident auspices.

Senator CANNON. There has been a lot of concern expressed about whether or not the Thunderbird program will be continued. And as you know, it has been a very popular program throughout the world. It is the "Ambassadors in Blue" as they are known, and they have certainly done a tremendous job. And I would like to ask you have you made a decision at this time as to whether the program will or will not be continued. And if it is to be continued, how soon do you expect it to start up again?

Secretary ORR. I will answer the first part, Senator. I made the decision the night of the accident that that program should be continued, by all means. It will be continued. And I will let General Allen speak to the way in which it will be continued, and the date.

General ALLEN. Yes, sir. The how soon is: As quickly as we can understand what caused that accident as well as we are going to be able to understand it, readdress the unfortunate series of events that have occurred within the past 12 months; and assure ourselves that we can restart that program in a manner which will permit safe and effective operations.

We are examining several alternatives on restarting the Thunderbirds. We will consider them carefully. Whether to restart it in the same airplane is a question to be asked.

Senator CANNON. That was going to be my next question. Are you going to take this opportunity to go to another airplane, such as the F–16?

General ALLEN. That will be an option that we will look at very carefully.

Senator CANNON. I may say that I attended memorial services out there and visited with the widows right after, and several of them expressed to me the hope that the program would be continued and would not be allowed to lapse. And I just wanted you to know that.

They are held in the highest regard. I knew all of those fellows personally and indeed am very saddened at the occurrence.

Secretary ORR. Senator, we appreciate not only your personal interest and your attendance at the memorial services.

But, for the record, I would like to say how much the Air Force appreciates the action of the regents of the University of Nevada in extending to the spouses and the children of all of those Thunderbird pilots as well as the two others that were killed in the last 12 months, scholarships to the university. It is very, very deeply appreciated throughout the Air Force.

Senator CANNON. Thank you, sir.

ENFORCER PROGRAM

Now, General, if I can turn to quite a different phase of your program today, you have indicated that you are going to end up with 40 wings. And I have just recently learned that a right-wing organization has designated me as soft on defense for one of my votes in Congress. And, so that we understand clearly about the program, I would like to ask you first when the first wing of the Enforcer will come into the inventory? [Laughter.]

And will it replace, will it be part of that 40-wing structure?

Secretary ORR. Let me take that over, Senator, because I have been working very hard on the Enforcer. I have a philosophy that when the Congress tells us to do something, we are going to do it.

It had been expected that the contract—we are operating under a letter contract now—would be signed by this time. It still has not been. I inquired only the day before yesterday. We are not quite up to the wing, though, We are working on two.

Senator CANNON. But, you do not have any plans to put it in the 40-wing structure at the present moment?

Secretary ORR. No, sir. No, sir. What we planned to do is build the two. There are certain safety features about it which would have been extremely expensive, and we have arrived at an understanding with the manufacturer that—because we are not comfortable with those safety features but they will meet FAA requirements—it will be flown through its envelope by contract pilots rather than by Air Force pilots, and we will see what the plane will do.

Senator CANNON. By the way, I think Senator Goldwater voted the same way as I did on that issue. So, I do not like to categorize him as soft on defense as I was so categorized.

AIRCRAFT ENGINE

Let me go back to another matter. We were talking about the competition among the two engines. What are you actually looking for in a new engine now or an upgraded engine? More thrust or more dependability or both?

General ALLEN. More dependability.

And by the way, I think that when I answered before, I did not say that the F-15 flight test has also been completed. So, the 101 engine has been flight tested in the F-16, the F-15, and the F-14.

The purpose of bringing along the F101DFE has primarily been to obtain competition and to look for the opportunity to exploit the improved durability of that engine. Now, there has been a problem because the 101DFE has a higher level of thrust than the F-100. We have, in large measure, restricted Pratt-Whitney from increasing the thrust of the F-100 engine.

The reason is that we are not basing the competition on comparative thrust. In the F-16, for example, the increased weight of the F-101 about offsets its increased thrust. So, there really is not much of a performance advantage associated with the new engine.

Since the very beginning of this program, our motivation has been to seek better durability and better maintainability and to emphasize those features in the competition. If the 101 would live up to all of the durability claims—and indeed many of those have

been supported by our own experience—then there can be a real competition. That is, the life cycle cost can be lower for the F–101. It is trying to create that situation that determines the course we are on.

C–5/C–17 ISSUE

Senator CANNON. I do not know if you may have gone into this in my absence, but what about the C–5/C–17 issue, has going ahead with the C–5, will that result in likewise at the same time moving ahead in R. & D. for the C–17?

Secretary ORR. That was not discussed in your absence. We will be going ahead with C–5 production. We are asking Congress for permission to carry on a small amount of R. & D. on the C–17 in 1983 in terms of about $32 million. It is not added funds; it is funds which we already have and we would simply reprogram so that we might maintain a limited program of R. & D. on that plane with the idea that somewhere in the late 1980's or the early 1990's the Air Force will find it necessary to replace the C–130's and particularly the C–141's and that this might be the vehicle which we would then look to.

Senator CANNON. I take it the Air Force has changed its position from the time we were first briefed on the C–17. At that time we were told that there were not enough bases in Europe to give you handling capability of the C–5 and that was one of the main reasons for going down the line toward the C–17.

Have you found more bases over there C–5 capable, or are you still operating under that same handicap?

General ALLEN. No; the advantages that caused us to specify the smaller aircraft, the C–17, are, or course, still there. The C–5 is a large aircraft, and on many of the fields in Europe it tends to block those fields until it can be unloaded. That is a disadvantage which the very large airplane has and was one of the reasons for our wishing to go with a smaller aircraft.

Our proposal now is to buy 50 C–5B's to augment the present fleet. We can utilize that capability very effectively. It is badly needed and we will be able to get C–5B's into the inventory quickly and with high confidence. And we made the decision on that basis.

Senator CANNON. Now, I note in your chart here that you have $270 million in 1982 and $800 million in 1983 and two airplanes. This is in the procurement area. Are you paying over a billion dollars for those two airplanes for the startup costs on the two airplanes?

General ALLEN. Well, that funding covers the startup costs required and putting the first two airplanes on order. And, I am sure, there is long lead money included for the additional aircraft to bring the production line up as quickly as we can.

CRAF PROGRAM STATUS

Senator CANNON. My time is up. But let me ask you one other question while we are on this. What is the status of the CRAF program now? We gave you some money to try to contract with the airlines and a program. Can you update us on that?

Secretary ORR. Yes, sir. I will try it and let the general finish.

We put out first a proposal to see how many airlines, air carriers, would be interested in offering their planes to us. And we got a surprising number of carriers who would offer their planes—possibly not surprising in view of the fact that the airline industry has excess capacity at the present time.

It turned out that almost every plane offered, I think, without exception, when we finally got down to talking price, was a DC–10, because the carriers went back to the manufacturers to see about the procedure for retrofitting the planes. And at that time the Boeing Aircraft Co. did not make proposals to the various carriers to take care of the 747. Almost all of the planes offered were the short version of the DC–10.

The thing that happened to us was that the price approached $25 million apiece. And we made a joint decision in which the Chief and I were both in agreement that that is simply too much money for the potential. We are buying an insurance policy. We are buying a plane which would be ours to commandeer for 8 years for a miminum, or possibly 16 years, but over which we would have neither use nor control except if the President declared a national emergency.

We had originally thought the program would come in at a much lower figure.

It is our present expectation to revisit the program in 1984 to see if events have changed so that there would be competition between both McDonnell Douglas and Boeing, to see if anything can be done in the program that would lower that very, very high cost.

Senator CANNON. Thank you, Mr. Secretary.

Secretary ORR. May I ask if the General has anything to add?

General ALLEN. No.

Senator QUAYLE. Senator Denton?

Senator DENTON. Good morning, gentlemen.

General Allen, the Air Force posture statement indicates the O. & M. share of the fiscal year 1983 program is 26 percent or $20.5 billion. This figure includes funds for both the Air Force Reserve and Air National Guard.

What is the specific figure for the reserve components, and are you comfortable with that figure?

General ALLEN. Yes. O. & M. on the reserve, fiscal year 1983, $2,528 million. We of course, work on the total force concept, and the Guard and Reserve receive the same emphasis on increasing O. & M. costs.

FLYING TIME PER PILOT

As you know, the flying hours per pilot in the Guard and Reserve are lower than in the active, and the reason is that the experience level is higher and the range of combat skills that we keep is a little bit narrower in the Guard and Reserve. As you well know, they are very competent organizations.

Senator DENTON. I think your service has the best incorporation of those components in the total force concept of any of the services.

Mr. Secretary, the Air Force fiscal year 1983 budget calls for the procurement of 1,300 AIM–7 radar-guided missiles. It has been re-

ported that this system is experiencing considerable cost overrun. Is the procurement figure of 1,300 still anticipated?

Do you anticipate an escalation of cost procurement to more than 25 percent? Since it was such an overrun, did you plan to cut it down any, or else where are you going to find the money for the overruns?

General ALLEN. Well, the 1983 budget has been prepared with the recognition of the actual costs. I believe in that missile, although we will have to provide this for the record carefully, quantities again were one of the reasons for the increases in price.

But we will give you a better description and analysis.

Senator DENTON. Is there a good chance the overrun was not one of these unanticipated development costs, or just inflation or whatever?

General ALLEN. We will have to give you more details.

Senator DENTON. Mr. Secretary, from the general reputation of the Air Force implementation of the integrity and management improvement program, I have to congratulate you. Your posture statement reveals over $1 billion in savings for fiscal year 1981.

MANAGEMENT IMPROVEMENT PROGRAM

For the record, since my information on this is relatively general, could you tell us something that you think would be informative about the specifics of that program? What specific policies have resulted in what specific savings, and so forth?

Secretary ORR. First let me just talk just one brief word about generalities. I think you approach savings in a major segment like the Air Force or the other services in three ways:

One, I have visited over 30 bases, which is probably negligible compared to the number that the general has visited in the last 12 months. Every time I meet with the junior officers, the senior officers, and the senior enlisted personnel, I stress the fact that the abuse in fraud and waste starts and must stop at their level, each level.

Every individual has to look at an expenditure and say, how would this look in the newspaper columns tomorrow. Let us cut out the unwise flights, if it is not purely mission related. Let us make sure that we are not using a part for a knick-knack or quickly throwing it away if it has reuseable value.

Second, cost overruns must be handled at my level. The responsibility for those lies with the Secretary. When they are severe it is a matter of looking at our people: Have we got the right person managing that program, have we got a correct understanding of the contract? Do we go back and work with the heads of that firm to see what is happening?

And the third place where we can achieve savings is through the Auditor and Inspector General. We are fortunate to have both a fine auditor and an excellent IG, Inspector General. It is absolutely essential that they work together. Through the Assistant Secretary for Financial Management we make sure that programs are closely coordinated and that there is no possibility that they work at cross-purposes.

Now two or three specifics——

Senator DENTON. Just on the generalities, if I may follow up. The word "integrity" means at each level, including each person down at the lowest rank. He applies honesty, diligence, thoroughness in recognizing if there is a problem there. Is that generally what you mean?

Secretary ORR. That is what I am getting at. There is a responsibility for everyone, civilian and military, to make sure that within his small sphere, he operates in a way that stands up to public inspection. We try and impress that on him.

And I think one of the best places to do it, frankly, is when I meet with the top three, the highest three grades of enlisted personnel, or supervisors who have the greatest number of persons with whom they are in daily contact. It is that kind of personal integritv or responsibility and the realization that they can be responsible for the public turning off of the military if unwise things are done that I try and stress. I will share this with the General. But for example, we saved a great deal by using J-57 engines that were in B-52's in aircraft storage at Davis Monthan as a source for replacement parts. We saved another additional amount of money by modifying the stored B-52F rather than designing and building a B-52 G and H armament system trainer.

We have got hand held programable calculators to help with fuel savings in some of our cargo aircraft. Interestingly, we have saved almost $2 million by reclaiming reusable packaging containers and packaging supplies.

So it goes throughout the spectrum of saving things that might have been trash, to looking in the stockpile to see if there are parts that can be brought back from the boneyard and put into active service. That is the nature of our attempts to save.

One of the interesting ones that I am personally familiar with was a saving achieved at the Air Training Command. Last year I conferred an honor on a member of the Air Force who suggested that planes at the Air Training Command receive air pressure and electricity through a centralized distribution system rather than from individual units located next to each plane. The life savings to that one command was $75 million. It is that sort of thing we are looking for, Senator.

Senator DENTON. It sounds good. When approaches like that have been applied in safety or some other functional category, they have been effective. They sound idealistic, but they do produce results.

Just as a matter of curiosity, having been fortunate enough to fly the T-38 a couple of weekends ago at Columbus, Miss., I was surprised to hear you say, although I am very much in favor of the continuation of the Thunderbirds also, that you were considering going to the F-16. And I just had not heard about that, and I wonder why.

I have not read that much about the accident to receive any implication that there was an aircraft problem.

General ALLEN. Well, I really do not want to make too much of that, because it is only one of a number of considerations of how we should go in the future. As a matter of fact, that particular consideration has been under way for a long time. It was not really related to the accident.

The reasoning behind it is that both the Air Force and the Navy have historically believed that their acrobatic teams should represent the combat skills of their pilots.

Senator DENTON. In the combat airplane.

General ALLEN. Yes, and they should be in a combat airplane. We have not been in that situation, for various reasons, for some years.

Senator DENTON. Thank you very much, gentlemen.

Mr. Chairman, thank you.

Senator QUAYLE. Thank you, Senator Denton.

I have just one other question and then I will yield if Senator Cannon has some further questions. And this may have already been brought up.

$750 BILLION GAP

Would you clarify the article that appeared in the Washington Post about the $750 billion gap. Basically it says that we are underfunded to the tune of $750 billion over the course of the next 5 or 6 years? Would one of you clarify that, substantiate it or correct it? Was it a serious study or a trivial study?

What are we really talking about when we hear things about $750 billion?

Secretary ORR. I will tell you what happened at a meeting, Senator, and I will let General Allen tell you about the production of a document which did not contain that figure, but which led someone to come up with that figure.

Senator QUAYLE. The Washington Post.

Secretary ORR. It was a figure brought up at a meeting which I attended, the Defense Resources Board meeting. There flashed on the screen a chart with probably 10 figures, and one those figures was $750 billion, which was a projection of—I do not want to call it needs; wants would be a more realistic term—of wants, of all of the military services over a long period of years.

It was not discussed in the meeting. There were other figures on the chart which made up parts of it, individual parts. And the part I remember best, for example, was $15 million, and we spent a long time worrying about that particular $15 million. We never got to the $750 billion, of which one major part came from, was drawn from, the joint strategic documents which General Allen is familiar with, and I will let him tell you about that.

Senator QUAYLE. What is that $750 billion? Was it part of a chart?

Secretary ORR. Part of a chart.

Senator QUAYLE. But it was not discussed that much?

Secretary ORR. No, because of the nature of what it was, and the General will tell you what it was.

Senator QUAYLE. Tell us what it was and then we can discuss $750 billion.

JOINT STRATEGIC PLANNING DOCUMENT

General ALLEN. In the planning process which the JCS goes through there are a number of steps and iterations to try to come up ultimately with the forces and the war plans to utilize those

forces. One of the steps is the generation of a document which is called the Joint Strategic Planning Document. It used to be called something different, whose initials were JSOP.

There is an art to preparing these documents, and this particular document is not fund constrained. That is, one looks 10 years into the future, assesses the possibility of how a war might take place, presumes that the war has to be fought that year, and then addresses what the forces to fight that war should look like. There are no considerations given to fund constraints, and there are no really extensive iterations as to whether the strategy and all is proper for that period of time.

The document then is used as a kind of a base of forces required out in the future, which one evaluates against fund constrainted plans; that is, against the actualities. While seeking smart things to do in the area of strategy and tactics and different kinds of weapons, someone, in this particular case, looked at that plan, the so-called plan for 10 years in the future, and said, if the defense were really to budget to that plan what would it cost. The number was actually substantially less than $750 billion. Then, they added inflation and other factors and came up with the number 750.

The number really did not have credibility. The document, on the other hand, is a serious document and has some utility, but not utility for that purpose.

Senator QUAYLE. Is this document, looking at it in the 10-year time period, a document that was prepared assuming that we are at peace and this would just be the ultimate force structure that you want to have, and it is just not funded? There is a gap somewhere and I am trying to figure exactly what that gap is.

The obvious point is, if we have a strategy that is going to demand $750 billion more, it is just totally unrealistic. As you well know, I think we are probably going to have to reshape our strategy a little bit to accommodate some of the budget restraints that we are facing this year. If that is so, this is very disconcerting to me.

PLANNING FOR FUTURE

General ALLEN. No such thing. It is not proper to draw that conclusion from the situation at all. The document is not intended to be used that way or for those kind of conclusions to be drawn from it, and they were not in this case by the group which Mr. Orr is a member of.

I think it is in the art of how you go about planning that one engages in some philosophy as to how to do these things. There are those people who do not assign much value to these documents and there are those who do assign considerable value to this as a step in the art of planning for the future.

My own view of it is, it is realistic in the sense that it says, if I knew I was going to fight a war in 1991, these are the forces I would wish to have when I got to 1991. Clearly, we do not in fact go about our business that way. Instead, we address the probabilities of war and those steps which we need to make those probabilities low. We continue to work on that each year, and we generate strategies, tactics, and weapons that are aimed at that more rational concept of national strategy.

The document is a useful one as a benchmark, but no more than that. It is not a plan for action.

Senator QUAYLE. But was it a plan assuming we might be in a war by 1991 and we therefore had to have to be at our utmost capability and readiness, et cetera, that is what the funding requirement would be? Is that what the document was?

Secretary ORR. Let me correct the record that the document had no funding. The document itself had no funding in it. Someone went through the document and added their own estimates of what the funding would be and we didn't discuss it. It is a gap between a document which is not designed for funding, but someone added their impression of what those funds would be, and the fact that what we were discussing was within the realm of the possible.

Senator QUAYLE. But the funding projection was based on wartime rather than peacetime, right or wrong?

General ALLEN. Yes, that is right.

Senator Quayle. And if we have an effective deterrent, we don't go to war and that $750 billion gap doesn't exist?

General ALLEN. I believe the $750 billion gap does not exist.

Senator QUAYLE. But the $750 billion gap, or some figure like that, existed in a very serious plan that was done based on the premise that if you had to go to war in 1991, that would be the funding requirements. Is that fair to say?

General ALLEN. Even there you took it to a point where it was not really intended to go. It doesn't include budgetary considerations at all. What the planning document does is lay out the composition of forces, how many ships and how many tactical fighter squadrons.

Senator QUAYLE. And someone attached that figure to it?

General ALLEN. Someone went back and stuck numbers to it. The point is that in that kind of planning the next generation step includes a lot of things. It includes funding and it includes a broader look at what the objectives are. It includes the issues of how you fight and all of the things that make it into a real world projection. Then this document is useful as some kind of a base to go from. But even attaching dollars to it is probably wrong.

Senator QUAYLE. Leaving the dollars aside, the actual plan itself was envisioning a wartime plan, say for the year 1991, is that correct?

General ALLEN. That is right.

Senator QUAYLE. And it wasn't a peacetime plan?

General ALLEN. No.

Senator QUAYLE. And if in fact you say you maintain our deterrent posture and you don't have to engage in a conflict, those plans, although we have to have them and we should have them, describe a potential funding question that doesn't exist?

General ALLEN. We have to address both near-term and long-term issues and pick an optimum policy to do that.

Senator QUAYLE. We probably will spend more time on that in the Armed Services Committee going through the plan and strategy. We always get in this hassle about high priority items like in MX or B-1 and numbers and we spend all of our time on that.

Senator Cannon, do you have any questions?

Senator CANNON. Mr. Secretary and General, you are both aware of the terrific problems that confront us here in the light of the budget and projected deficit and so on, and in light of the amount

of the increase in spending. I have been a strong supporter for years for more defense than we have been doing, and I am a supporter at this time, but I can't help but believe that in a budget of this size posed for this year, that there are some areas where we could effect some economies by cutting out fat, or perhaps reviewing some programs that may or may not be as cost effective as others.

DEFENSE BUDGET PRIORITIES

My question is, can you tell us if Congress were to impose, let us say, a 4-percent cut in the defense budget or a 3-percent cut in the defense budget, can you give us areas where those cuts could be applied that would do less damage to the military force structure than if they were imposed without your guidance?

Secretary ORR. Let me help you if I can by letting you know how we build our budget priorities. Therefore within reason if we were to dismantle the budget it would be an inverse order of priorities.

Our first and foremost priority is the people in the Air Force, their pay and the quality of living.

The second one is the strategic safety of the United States.

The third one is readiness and sustainability, which the general discussed a little while ago so we don't have an empty force and we have a force with planes that will fly and we have the other services with tanks that are ready to operate.

The next one in order is modernization of our forces.

The last one relates to the subject that you have brought up and in which you are so interested.

Fifth, the number of wings, force structure increases.

Now, if we back up we would reverse those priorities and we would start with the lowest priority and work our way back up. I don't want to imply that you could ever build a budget or unbuild a budget by rote. It doesn't mean you would eliminate the purchase of every single fighter plane in the entire 1983 budget before you begin to look at the first item of readiness and sustainability. You would be the first to say that would be a stupid way to go, but in general those are ways in which we build our priorities.

The reverse would be the way we start to attack them if it were necessary to make cuts.

Senator CANNON. I am sure we may be coming to you for advice on some of these programs as we go through the process because something is going to have to give someplace and I think defense is one that is going to have to take a part of its share.

Thank you, Mr. Chairman.

SELECTING BASING MODE

Senator QUAYLE. Let me ask two further questions.

Is it not the case that when we select a permanent basing system which is adopted for the MX, that basing system will be designed for the baseline MX design? Is that true?

Secretary ORR. Let me say I am not sure it came out clearly in previous testimony. If we adopt a combat patrol aircraft which does not exist today even on paper, the first characteristic of the plane

would be to carry the missile and not to change the missile to fit some plane.

I believe you would agree to that. If we adopt a deep underground basing mode which doesn't exist today, it would be a basing mode which would accommodate the missile.

We will not adopt a basing mode that does not accommodate the missile. I think that is what you are asking.

Senator QUAYLE. What I am asking for is comfirmation that the modifications to accommodate the basing mode would be minor and not major?

Secretary ORR. That is affirmative.

Senator QUAYLE. If we go ahead with MX production now, whether we eventually go to air or deep underground or what, we can accommodate those minor changes. They would be minor and not major, is that correct?

Secretary ORR. That is absolutely correct.

Senator QUAYLE. I have one other final comment about useful megatonnage.

In respect to the elimination of the Titan and their warheads, you are indicating the combination of the improved accuracy of the multiple independently retargetable warhead on Minuteman III and the MX missile will be sufficiently more useful and therefore more militarily significant weapons, than suggested by cancellation of the large amount of megatonnage involved with Titan?

Secretary ORR. Very definitely.

Senator QUAYLE. General Allen, it is a pleasure to have you back, and Mr. Secretary, I would like to commend you on your year in office. You seem to have a good grasp of what is going on and I want to compliment you for quickly getting up to speed. Your testimony today has been very good and we certainly can see you have absorbed a lot of on-the-job training.

The record will stay open until 5 o'clock today for additional questions.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

NEW SOVIET BOMBER AND CMCA

Senator THURMOND. Mr. Secretary, you mentioned that the Soviets were developing a new strategic bomber and possibly a new cruise missle carrier aircraft. Would you elaborate on these points?

Secretary ORR. We have evidence indicating the Soviets have developed and are testing a new variable geometry wing bomber similar to the U.S. B-1. This new aircraft will most likely have a multi-role capability as a strategic bomber and a cruise missile carrier.

SOVIET CRUISE MISSILE DEVELOPMENT

Senator THURMOND. What level are the Soviets in their cruise missile development when compared to U.S. capabilities?

Secretary ORR. The Soviet Union has continually deployed large, relatively short-range, air-launced cruise missiles since 1956. However, only in recent years has evidence appeared that they are developing a small cruise missile, comparable in size and performance to our ALCM. [Deleted.]

SHORTAGE OF INTRATHEATER AIRLIFT

Senator THURMOND. General Allen, last year General Jones stated that there was a shortage of intra-theater airlift. Is there still such a shortage?

General ALLEN. Yes. We do not possess sufficient intratheater lift capability. Moreover, because of age and capability limitations, we will need to begin replacing our C-130's at the end of this decade.

C-130H'S

Senator THURMOND. General Allen, would it be advisable for the Congress to add C-130Hs to modernize active duty airlift capability allowing C-130Es to fall out to Guard and Reserve units for modernization?

General ALLEN. We believe that our fiscal year 1983 budget represents the best, balanced military capability available within fiscal constraints. Additional C-130Hs, although highly capable aircraft, would have to be funded at the expense of other, higher priority programs unless the overall Air Force obligational authority were increased.

UPGRADE OF C^3 CAPABILITY

Senator THURMOND. Mr. Secretary, you stated that modernization of C^3 capability is of critical importance.

What steps are being taken to upgrade these capabilities?

ANSWER. We are making programmatic improvements in early warning, command centers and communications, and have initiated an R. & D. program directed toward developing an enduring system.

With regard to early warning, programmatic initiatives are underway to provide protection against [deleted] and to provide for physical survivability (e.g., [deleted] infrared sensor and proliferating component systems); accuracy of attack assessment (e.g., developing and fielding the advanced warning system); timeliness of attack assessment and area coverage (e.g., upgrading the current PAVE PAWS radars and eventually adding to PAVE PAWS in the southeast and southwest United States.

Command center improvements include a variety of technical and redundant measures to improve the command center resistance to nuclear attack and jamming, and to upgrade the data processing capability: (e.g., improving VLF/LF systems on the E-4B and EC-135 airborne command posts; hardening criteral ground center equipment to EMP effect; and upgrading the computers at the NORAD Combat Operation Center).

Communications programs represent a balanced, essentially evolutionary approach to overcome deficiencies. As with command center improvements, they rely on a variety of measures aimed at reducing vulnerability to physical attack, jamming and nuclear effects. Our principle long-term communications improvement is MILSTAR.

ASAT CAPABILITY

Senator THURMOND. Mr. Secretary, the Soviets have an operational antisatellite capability. What progress is being made in such a system for the US and how would the system be employed?

Secretary ORR. Flight testing of our ASAT system is scheduled to begin in [deleted] with an [deleted] initial operation capability planned. Our baseline ASAT system consists of a modified Short-Range Attack Missile first stage, an ALTAIR III second stage and a Miniature Vehicle warhead. This missile will be air-launched from designated air-defense F-15's. The kill mechanism is [deleted].

DELIVERY OF CW BY SOVIET TACTICAL AIRCRAFT

Senator THURMOND. Mr. Secretary, in your statement you point out that NATO airfields and installations are within striking distance of Soviet tactical aircraft. What types of tactical aircraft do the Soviets utilize for delivery of chemical weapons?

Secretary ORR. [Deleted.]

OPERATING IN A CB ENVIRONMENT

Senator THURMOND. General Allen, what capability do our personnel have for operating in a chemically or biologically contaminated environment?

General ALLEN. Air Force personnel have a very limited capability for operating in a chemically or biologically contaminated environment. Our forces in Europe and Korea are equipped to be able to function for at least [deleted] in a contaminated environment. Our forces in other locations are [deleted.]

Operational capability is dependent on the availability and quantity of protective clothing, personal decontamination kits, detection systems, and collective protection facilities. The length of time our personnel can function in a chemical or biological environment is limited by how long personnel can work in protective suits before they need to eat and recuperate. To conduct operations in a contaminated environment [deleted] collective protection facilities are necessary to recycle personnel between contaminated work areas and clean rest areas. We currently [deleted] collective protection facilities for sustained combat operations.

F-16'S FOR ANG

Senator THURMOND. General Allen, I am pleased that the South Carolina Air National Guard will begin receiving F-16's in 1983. What Guard unit will receive the 20 F-16's appropriated in the fiscal year 1982 budget?

General ALLEN. The 157 Tactical Fighter Squadron, McEntire AGB, South Carolina.

QUESTIONS SUBMITTED BY SENATOR BARRY GOLDWATER

STRATEGIC VERSUS TACTICAL

Senator GOLDWATER. With the commitment to fund the B-1 and MX does the Air Force's fiscal year 1983 budget reflect a shift in the funding balance between strategic and tactical forces?

General ALLEN. Our fiscal year 1983 budget request reflects the force improvement priorities we have set. In view of the major expansion of Soviet strategic nuclear capabilities and the deficiencies in our strategic capabilities, we have placed first priority on strengthening our strategic forces. Nonetheless, our fiscal year 1983 request continues the emphasis of the preceding two budgets on improving the readiness and sustainability and modernizing our tactical forces.

AIR DEFENSE FORCES

Senator GOLDWATER. What is the Air Force's current plan to modernize our air defense forces?

General ALLEN. Our plans encompass the initiatives announced by President Reagan to improve tactical warning, attack characterization, and air defense and control requirements. We intend to upgrade our aging DEW Line radars deployed across northern Canada, improvements which will provide continuous low-altitude coverage of northern approaches and reduce annual O. & S. costs. To supplement the current Joint Surveillance System, which consists of FAA and military joint use radars in Alaska, Canada and the US, we plan to deploy long range Over-the-Horizon Backscatter (OTH-B) radars on the East and West coasts by mid-decade, and a follow-on southern looking OTH-B. These radars will provide all-altitude coverage and early warning of hostile intruders out to 1,800 miles.

Further, we plan to upgrade our continental air defense capability by converting our five active F-106 squadrons to F-15's, and procuring [deleted] additional E-3A AWACS aircraft. F-15's have a long-range, large volume search radar and a look-down shoot-down capability which will complement the improved wide area surveillance system. In the longer term, we plan to replace the F-106's in Air Guard units with a more modern aircraft, probably either F-15's or F-16's.

TACTICAL AIRLIFT

Senator GOLDWATER. In fiscal year 1982 we added 12 C-130's to the DOD procurement. I understand that again in the DOD fiscal year 1982 budget request there is no procurement of tactical airlift aircraft. Isn't there still a shortage of intratheater airlift?

Should the Congress again add tactical airlift aircraft to the procurement program?

General ALLEN. Yes, there is a shortage in intratheater airlift. Of the twelve C-130H aircraft in the fiscal year 1982 budget, eight were designated for the Air National Guard. The remaining four were assigned to the Marine Corps Reserve.

The Air Force did consider procuring additional C-130's during preparation of budget submissions for fiscal year 1983. However, when weighed against higher priority programs, we could not justify additional intratheater airlift funding.

We believe that our fiscal year 1983 budget represents the best balanced military capability available within fiscal constraints. Additional C-130H's, although highly

capable aircraft, would have to be funded at the expense of other, higher priority programs unless the overall Air Force obligational authority were increased.

UNIT COST REPORT

Senator GOLDWATER. We have recently received the so-called Nunn amendment report—or Unit Cost Report—on those Air Force programs which have experienced considerable cost growth during the past year.

Would you briefly explain the reasons for the cost increase for each of these programs?

General ALLEN.

Maverick.—This system's increase is due primarily to changes in cost estimates for the guidance section, inflation estimates and design changes required in research and development.

F-15.—The increase in the F-15 program cost reflects principally the increased aircraft buy planned and the associated support equipment. Our report reflects a total buy of 1,395 F-15s through fiscal year 1990.

F-16.—F-16 increases are primarily due to the development and procurement costs for an expanded aircraft buy and associated support equipment. It includes costs for configuration changes and the inflation impact of procuring these aircraft in the out years. The projected F-16 acquisition through fiscal year 1990 is now 1985 aircraft.

A-10.—The increased unit cost of the A-10 is due primarily to the change in the planned fiscal year 1982 aircraft procurement, which has been reduced from 60 to 20 aircraft.

The Defense Satellite Communication System (DSCS).—Cost increases in DSCS are primarily due to increases in the estimates of labor, materials and subcontractor costs. Additional changes were caused by schedule delay and associated inflation. The current estimate is based on firm contractor proposals.

AIM-7M.—The U.S. Navy is executive agent for the AIM-7 program and is providing a separate report.

AIM-7M

The fiscal year 1983 program should support procurement of 1,300 AIM-7M missiles and includes cost increases which have occurred since the March 1981, Selected Acquisition Report. The fiscal year 1982 Procurement Unit Cost (PUC) has increased by 42 percent and the Total Program Acquisition Unit Cost (TPAUC) has increased by 25 percent.

The reasons for cost escalation were:

Both contractors' proposed prices were higher than expected. Material, labor and inflation rates were higher than budgeted.

The Navy reduced their fiscal year 1982/83 program by $37.4 million. This action decreased quantities and increased unit cost throughout the balance of the program. As a result of the higher unit costs the Air Force was forced to cut quantities in fiscal year 1982/fiscal year 1983, further increasing unit costs.

Congress cut $25.5 million from the fiscal year 1982 Navy/Air Force appropriation, thus reducing quantities and increasing unit prices throughout the program.

The AIM-7M failed OPEVAL/IOT&E. Design and quality control changes were made to correct AIM-7M problems causing production program delays and increased costs.

Recent tests indicate the technical problems have been solved. This will be verified in OPEVAL/IOT&E tests starting April 1982.

QUESTIONS SUBMITTED BY SENATOR JOHN W. WARNER

BINARIES

Senator WARNER. General Allen, the President has certified the need for modernizing the nation's retaliatory chemical stockpile. Some of your subordinates have testifed previously about the importance the Air Force attaches to deterring the outbreak of chemical war and the crucial role that a credible retaliatory capability plays in such deterrence. Do you agree and would you comment on the support you personally and the Air Force, as a whole, give to the President's chemical preparedness program?

General ALLEN. I certainly agree. Deterrence of Chemical Warfare (CW) requires a viable retaliatory capability. Since our present capability has been limited by lack

of usable munitions, the Air Force has emphasized continued development of an air deliverable binary weapon. This weapon will give us both required retaliatory capability and safe handling characteristics.

The joint Navy/Air Force development program is continuing with initial Air Force weapon procurement planned for [deleted].

B–1 REPROGRAMING

Senator WARNER. Mr. Secretary, what importance do you attach to the prompt approval by the Congress of the reprograming request related to the B–1 bomber? Can you provide an analysis of the cost impact and schedule difficulties that might result from undue delay or outright disapproval of the request by one or more of the four committees?

Secretary ORR. You will recall that Congress did not provide sufficient funds in the fiscal year 1982 Appropriations Act to fully support the fiscal year 1982 B–1B R.D.T. & E. tasks. Without reprograming there would be insufficient funding to support the fiscal year 1982 R.D.T. & E. tasks. This, in turn, would require an immediate restructuring of the B–1B program and renegotiation of our fixed price incentive firm target contracts.

The result of these actions would be an estimated six to nine month slip in the production schedule, the IOC would slip into mid-1987, program schedule risk would be appreciably increased and the $20.5B program budget (in fiscal year 1981 dollars) would be exceeded.

AIR DEFENSE STUDY

Senator WARNER. General Allen, it is my understanding that a comprehensive study of North American air defense requirements has been submitted to the Department of Defense by CINCNORAD. Will this study and its recommendations be made available to the Congress, and if so, when?

General ALLEN. The DOD North American Air Defense Master Plan was developed by an OSD Working Group that included personnel from the Air Staff, OJCS Staff, HQ NORAD and HQ Canadian Defense Staff. OSD is awaiting "agreement in principle" from the Canadian Staff and is expected to forward the Master Plan to Congress after this coordination is received.

KC–135 REENGINING

Senator WARNER. Mr. Secretary, the Congressional Budget Office has recently recommended the proposal for reengining the KC–135 tanker fleet with modern CFM56 engines. In light of the evidence that the JT3D engines, which could be used as an alternative, are available in some quantity from the airlines at a substantial savings and the cost of modifying the KC–135 airframes, this proposal has some appeal. Would you care to comment?

Secretary ORR. Since we have not received a complete version of the Congressional Budget Office recommendation, I cannot comment with any detail. Over the long term, the Air Force plans to reengine all KC–135A's with the CFM 56 engine. During the FYDP period (fiscal year 1983–87), we plan to buy reengining kits for 300 KC–135's approximately one-half the total fleet.

We selected the CFM 56 over the JT3D because the CFM 56 reengining program is the most cost effective method of reducing our tanker shortfall. It will add an equivalent of 308 KC–135A's to the force if the entire fleet is retrofitted. By comparison, because of its lower performance and higher fuel consumption than the CFM 56, JT3D reengining of the full fleet would add only 123 KC–135A equivalents, assuming enough JT3D's were available. Furthermore, the JT3D does not meet the 1985 EPA pollution standards. Though an improvement over the J57, the JT3D would still present noise and air pollution problems.

TITAN II RETIREMENT

Senator WARNER. Mr. Secretary, what does the Air Force intend to do with the Titan II missiles it has announced will begin to be retired starting in October 1982? Will the boosters be retained for possible refurbishment and use as space system delivery vehicles?

What will be done with the highly toxic liquid fuel which will be offloaded from the Titan IIs—will it be stored, disposed of, or is it usable for Titan III boosters?

Secretary ORR. Deactivated Titan II boosters will be stored at Norton Air Force Base, California, for possible future use as space launch vehicles. We are currently studying modification and refurbishment requirements as well as possible missions.

Titan II appears to be a suitable booster for several payloads such as the Defense Meteorological Satellite Program and NAVSTAR Global Positioning System satellites.

Both the fuel and oxidizer from the Titan IIs are used with Titan III boosters and, to a lesser extent, in other programs. We have developed a propellant management plan based on known use rates, existing and planned storage facilities, and the download schedule. Most of the fuel, which has a current value of some $55 million, will be stored. We will need to increase the storage capacity at the Eastern and Western Test Ranges to accommodate the downloaded fuel. Accordingly, we have requested $5.0 million in fiscal year 1983 to expand the Vandenberg AFB capacity and plan to seek an additional $5.7 million in fiscal year 1984 to build facilities at the Eastern Test Range. The oxidizer is less expensive, and it does not appear to be cost effective to develop additional dedicated storage. Excess oxidizer will be disposed of through sale to private industry or transfer to the Army for use in ammunition production.

MINUTEMAN III EXPANSION

Senator WARNER. General Allen, in its decision to deploy additional Minuteman III missiles in place of Minuteman IIs, the Department of Defense seems to have overridden previously-expressed Air Force concerns about reducing the number of spare and test missiles needed to support the Minuteman III reliability testing program. Has that concern been dispelled since last year? If not, in your personnal opinion, would you prefer to see the Minuteman III missiles which will become available when forty of them are supplanted by the interim basing of the MX, be returned to the stockpile for testing of Minuteman III rather than deployed in lieu of Minuteman IIs?

General ALLEN. We previously opposed the deployment of 100 additional Minuteman IIIs in place of Minuteman IIs because that would severely limit the number of remaining Minuteman III flight test assets. However, we did state that the deployment of 50 additional Minuteman IIIs would provide a visible near-term ICBM force improvement as well as provide a better balance of Minuteman II and Minuteman III flight test assets. The advantages of deploying 50 additional Minuteman IIIs remain valid and I support the planned completion of this conversion in fiscal year 1983.

With regard to the 40 Minuteman missiles that will be replaced when MX is deployed in Minuteman silos, I believe we should determine their disposition in early 1985 based on pertinent factors such as the existing strategic environment at that time, Minuteman II and III flight test requirements, and arms control implications.

The fiscal year 1983 budget request for the Minuteman Extended Survivable Power (MESP) program totals $40.0 million. This includes $35.5 million for modifications and $4.5 million for initial spares. Fiscal year 1984 funding requirements include $24.0 million to complete the procurement and $5.9 million in Operation and Maintenance to begin installation in 200 Minuteman III silos.

Formal direction to proceed with the production and deployment phases was issued by the Air Force on 16 February 1982. Final production engineering of the batteries and ancillary hardware will be conducted between February and May 1982, followed immediately by the first increment of full-scale production. Installation is scheduled to begin in March 1984.

QUESTIONS SUBMITTED BY SENATOR ROGER W. JEPSEN

NAVSTAR GPS

Senator JEPSEN. In the Conference Report attached to the Defense Appropriation Bill for fiscal year 1982, the Appropriations Committees of the House and Senate mandated that the Air Force reprogram sufficient funding to the procurement account for NAVSTAR GPS to maintain the program IOC. When do you plan on submitting a reprogramming request to the Congress?

How much do you plan to reprogram to keep the GPS IOC from slipping?

How will the planned funding level achieve the planned IOC of the GPS program?

General ALLEN. We expect to submit a request in mid-March to reprogram $20.1M into the NAVSTAR account in fiscal year 1982. This added funding should enable us to provide the NAVSTAR GPS three-dimensional capability in 1988.

The proposed reprogrammed funds will be used to initiate a block buy of the initial 18 satellite GPS constellation including spares. This fiscal year 1982 block buy

will result in overall cost savings and the schedule efficiencies associated with it will allow the Air Force to achieve the planned 1988 IOC.

F-15 AND F-16

Senator JEPSEN. Given the fact that we are currently involved in upgrading the all-weather, day-night capability of the F-16, why are production rates for the F-15 being maintained at such high levels?

Given the current state of technology, can the F-16 be made as capable as the current F-15?

General ALLEN. We are maintaining the current F-15 production rates to modernize our CONUS air defense capabilities and to continue the modernization of our tactical forces. Although we are enhancing the F-16 to ensure that it will be able to perform its multi-role missions, the F-15 still has range advantages; can provide longer radar contact/lock-on ranges; and has approximately twice the air-to-air weapon payloads and significantly better electronic counter countermeasures. These features cannot be cost-effectively incorporated within the physical limits of the existing F-16 airframe.

AMRAAM

Senator JEPSEN. You noted in the joint statement that the AMRAAM is being developed as a launch-and-leave, autonomous air-to-air missile. This means evidently that you are pushing for a beyond-visual-range kill capability. How do you plan to utilize this capability in Europe where there is no reliable NATO-wide IFF at the present time?

General ALLEN. Our air superiority forces face a capable and growing Soviet threat. A large portion of the Soviet air-to-air fighter force can employ beyond-visual-range (BVR) missiles; therefore we can ill afford to concede this area to them. Our current all-environment, all-aspect missile is the AIM-7M. It is effective, but we must continue to improve our capability to contend with the threat in the late 1980's and into the 1990's. AMRAAM has demonstrated its operational utility in extensive testing and simulation.

Beyond-visual-range missiles have been successfully employed in past combat operations. NATO-standardized command and control procedures, rules of engagement, and methods to procedurally isolate friendly and enemy aircraft now allow us to engage the enemy at beyond visual ranges despite the lack of a standardized NATO IFF system. A reliable, standardized NATO IFF would permit us to exploit the capability of these weapons more fully; however, fielding a NATO IFF is not a prerequisite for BVR employment.

ELECTRONIC WARFARE

Senator JEPSEN. On page 18 of the Joint Statement you indicate that the F-4G Wild Weasel is an important near-term lethal defense suppression system capable of attacking enemy air defense radar with anti-radiation missiles. You also have requested funds for the last of 42 EF-111A's which are designed to disrupt enemy radar by jamming.

Can an F-4G attack a radar emitter being jammed by an EF-111A?

If not, is it cost-effective to fund two systems that might effectively cancel each other out on the battlefield?

General ALLEN. Yes. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

STRATEGY/RESOURCE GAP

Senator NUNN. General Allen, I am concerned that we may have a widening gap between our military strategy and our means to carry it out. We have had testimony from the Secretary of Defense that "our strategy (against Soviet aggression) is based on * * * the prospect we might carry the war to other arenas * * * We might decide to * * * engage the enemy in many places * * * The geographic distribution of our assets must be guided by the prospects for protecting our vital interests and winning the war."

You are a member of the Joint Chief of Staff, in addition to being Chief of Staff of the Air Force. I assume that, in your JCS role, you are familiar with the Joint Strategic Planning System that annually produced the Joint Strategic Planning Document.

Could you tell us what this represents? In other words, is it the collective judgment of our top military leaders of what is necessary to meet the threat under the strategy guidance provided by the President and the Secretary of Defense?

Did the JCS develop a new strategic planning document this year based on new strategic guidance?

Did the military forces recommended by this plan to carry out the strategy increase this year?

How much did Air Force requirements increase?

Was the $750B additional cost referred to in the Defense Resource Board meeting related to the cost of the additional forces in this plan? Previous testimony indicated it was related to a JCS recommendation.

I understand the JCS did not recommend funding this entire $750B in this 5-year program. Is it your view that the $750B is an estimate of the cost of the additional forces recommended by the JCS to carry out the strategy?

General ALLEN. I am familiar with the Joint Strategic Planning Document, or JSPD.

The JSPD is designed to provide the advice of the Joint Chiefs of Staff to the President and the Secretary of Defense. It provides recommendations on the national military strategy and force structure required to attain, with reasonable assurance of success, the national security objectives of the United States. The document also presents the views of the Joint Chiefs of Staff on matters of strategic importance.

The structure of the military force presented in the document, the planning force, establishes the basis for determining the increased risk of lesser force structures and for identifying areas needing improvement. The planning force is unconstrained by cost or non-military factors. War plans and strategies for employment of forces are based on the programmed forces, not the planning force. However, the JSPD provides a base of reference to assess the effectiveness of plans and strategies for the real world. The Joint Chiefs of Staff did develop a new JSPD this year based on the Defense Guidance provided by the new Administration. Because of the short time available between the publication of the initial guidance and the commencement of fiscal year 1984 planning, the JCS did not refine the planning force based on the current guidance. The Air Force however, is currently reviewing the Air Force-developed planning force to determine if further adjustments are required. These adjustments will be contained in the JSPD due to be published in late summer.

The dollar figure referred to in the Defense Resource Board meeting was not developed by the JCS. However, it appears to be much larger than our estimates of the difference in cost between the planning force and the programmed force. In any event, we regard that cost number as having little meaning.

AIR FORCE/NAVY

Senator NUNN. I asked you last year about the contributions that the Air Force could make in maritime arena. In his statement to the full committee, Secretary Carlucci said, in explaining his definition of maritime strategy, that this envisions a greater Air Force role with our Navy.

What is the greater Air Force role under this concept, what is your understanding of the maritime strategy, and how is this greater Air Force role manifested in programs in the 1983 budget?

General ALLEN. Our maritime strategy requires that we maintain a superior power projection capability wherever needed. In the context of this discussion, "maritime" includes all forces, air and naval, involved in operations in or over the oceans. We can attain an increased capability in joint maritime operations by improving cooperation among the services.

The Air Force is restricted by Title 10 and DOD Directive 5100.1 from building a force structure based on collateral functions. According to these directives, Air Force collateral functions are to train forces to: (a) interdict enemy seapower through air operations; (b) conduct antisubmarine warfare and protect shipping; (c) conduct aerial minelaying operations. The ability to carry out joint maritime operations is of great importance to the maritime strategy. It is clear that we must continue to develop our capabilities to carry out missions over the world's oceans.

In the future, the Air Force will increase the level of cooperation with the Navy in the maritime role. We will help to defend the sea lines of communication (SLOC), increase our joint maritime exercise activity, and assist in the defense of key islands and flank theaters.

While we are not building forces specifically to carry out maritime missions, the fiscal year 1983 budget does reflect an increased emphasis in this area. We are continuing to research and develop conventional standoff weapons which could be used to attack the soviet surface fleet. Improvements to the B-52 aircraft will better enable us to conduct long-range anti-shipping operations and our E-3A AWACS greatly improves our capability to conduct sea surveillance.

INTELLIGENCE CAPABILITIES

Senator NUNN. Because of your special background in intelligence matters, I have asked you for the last several years what general concerns you have in this area if any. I would pose the same question this year and also ask what do you think the major improvements have been in the intelligence area in the last several years?

General ALLEN. I continue to believe that while our technical collection systems are enormously effective in gathering data, the primary challenge we face lies in the accurate and timely interpretation and analysis of that data so that it can be effectively utilized by our senior policy makers and military commanders. Over the first few years the Air Force has placed particular emphasis on efforts to improve our ability to make the latest intelligence information rapidly available to our theater commanders in Europe and the Far East. To that end we are working with the Army and, our national intelligence programs to develop a Korean Combat Operations Intelligence Center to support the Combined Forces Command with near-real-time, all-source intelligence in that theater. In response to USCINCEUR requirements, we are taking elements of the Joint Tactical Fusion Program testbeds to Europe in order to provide immediate, limited intelligence fusion.

These efforts are aimed at improving our total system to apply intelligence data in support of the operational commander. Our efforts in these areas have been aided by our improved ability to recruit and retain skilled Air Force intelligence personnel, which reflects both increased overall retention and the payment of bonuses for selected enlisted specialities.

MILITARY STRATEGY

Senator NUNN. In answer to my questions last year about the state of U.S. strategic thinking and planning, you said "I believe our current strategy and planning process is fundamentally sound." Do you still hold that view?

General ALLEN. Yes. Through the JCS planning process and through the Defense Resources Board (DRB) review and discussion of service programs alternatives, I believe we have an effective strategy formulation and review process. We have also now completed a full planning cycle in developing a new Defense Guidance with frequent service and DRB review. Over the past year, the process has focused OSD, JCS, and Service leadership attention on key issues with extensive staff analysis of issues and alternatives.

MX WARHEAD

Senator NUNN. What is the current status of a decision on the warhead for the MX missile? I understand that consideration is being given to the Advanced Ballistic Reentry Vehicle (ABRV) in lieu of the Mark-12A. Is this correct and what are the budgetary and military implications?

General ALLEN. Following a comprehensive review, the Department of Defense has selected the ABRV as the reentry vehicle for MX. Selection was based on the following considerations:

The ABRV is an advanced technology reentry vehicle with an improved fuze, improved accuracy, enhanced all-weather performance and increased hardness against nuclear effects. It also has growth potential for a higher yield warhead which will provide an important hedge should MX accuracy be less than currently envisioned or should Soviet target hardness continue to increase.

Since the MK 12A is currently being retrofitted into a significant portion of the Minuteman III force, deployment of ABRV on MX will provide an important element of diversity and advanced capability in the MIRBed ICBM force.

The ABRV will incorporate all of the modern safety features which will reduce even further the already very small chance of a nuclear accident. This is particularly important since mobile basing options for MX are under consideration.

Finally, the ABRV warhead will use significantly less nuclear material than the MK 12A for equivalent yields.

The cost increase incurred by the Department of Defense for using ABRV rather than MK 12A is approximately $881 million ($ fiscal year 1982). It is important to

note, however, that about $259 million ($ fiscal year 1982) of additional funds would have been required to upgrade the MK 12A fuze. This reduces the Department of Defense's cost increase to around $622 million ($ fiscal year 1982). Additionally, there are substantial Department of Energy cost savings associated with use of the ABRV because the [deleted] warhead (ABRV) uses less arolloy than does the W-78 warhead (MK 12A). This saving will amount to approximately [deleted] ($ fiscal year 1982).

In view of the benefits, and the importance of MX to our strategic modernization program, we believe that the relatively small overall cost increase incurred by proceeding with ABRV is justified. Further, the inherent yield growth potential of the ABRV reduces the risk of being required to make costly modifications to the MX reentry vehicle in the future.

WILFORD HALL HOSPITAL

Senator NUNN. Mr. Secretary and General Allen, I am sure you are familiar with recent reports about the Wilford Hall Hospital situation that raised questions about the quality and oversight of medical care in the Air Force. What is the Air Force doing to investigate this matter and what is your view as to the quality of medical care in the Air Force? What specifically is the Air Force doing to investigate the issues raised by the Atlanta Constitution series on the Wilford Hall Hospital medical case? What is the timeframe of any investigation and what form will any report take?

Secretary ORR. It is my view that the Air Force is providing excellent health care. The noneffectiveness rate of active duty personnel is the best in Air Force history. The Air Force compares very favorably with the civilian medical community in accreditation of its hospitals and Air Force training programs are of high caliber.

As far as the reports about Wilford Hall Hospital are concerned, we have directed the Air Force Inspector General to conduct several investigative initiatives concerning reports about the Wilford Hall USAF Medical Center and related matters. These initiatives, including timeframes for resulting reports, were briefed to the Staff Director of the Senate Armed Services Committee on 11 February 1982.

First, the Inspector General is conducting a comprehensive review and evaluation of the Air Force Health Care System, focusing on the following subjects: the adequacy of current Air Force medical facilities; assessment of the state of equipment, supplies, and materials; delays or waiting periods experienced by active duty and retirees for routine care and intricate surgical operations; perceptions of military members and their families of the quality of care received; the accreditation process as related to Air Force facilities; quality of the Air Force provider and in-house trainee provider force; and overall quality of Air Force medical care in general.

Second, the Society of Thoracic Surgeons has been requested, under the auspices of the Inspector General, to conduct an independent review of the surgical cases of Dr. William Stanford. We need the facts concerning the alleged mortality rate from a professional, independent, and respected source. We are in the process of working out the details with the Society.

Third, the Air Force Office of Special Investigations is conducting an investigation into the alleged forgery of Colonel Stanford's Officer Effectiveness Report. All leads and laboratory work are being expeditiously completed in order to resolve this question as quickly as possible.

Fourth, the Inspector General is conducting a formal investigation into the administrative practices and management actions concerning the Dr. Stanford case. This will include many of the issues raised by the news media about the Surgeon General, USAF.

Finally, the Inspector General previously scheduled a ten-day Health Service Management Inspection at Wilford Hall USAF Medical Center to begin 31 January 1982. This investigation has now concluded. The report will provide an evaluation of the current capability of the Center to accomplish its missions. It will also measure the effectiveness and efficiency with which health care delivery resources are managed.

The Air Force is totally committed to ascertaining all the facts concerning this entire matter and will proceed as rapidly as possible. We will be providing a detailed schedule of the various investigative efforts in the near future.

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The Air Force is attempting to ascertain all the facts concerning this entire matter and will proceed as rapidly as possible. We will be providing a detailed schedule of the various investigative efforts in the near future.

AIR FORCE MEDICAL SITUATION

Senator NUNN. What is the role of the office of the Air Force Surgeon General when a matter of this nature is brought up?

Secretary ORR. Air Force regulations provide detailed instructions on procedures to follow when a practitioner is identified for unprofessional conduct or professional incompetence. The sequence and responsible personnel at different command levels are:

1. The Medical Facility Commander or Credentials Committee Chairman may restrict privileges immediately to protect the health or safety of a patient.
2. The Credentials Committee reviews the case. In most cases, the Credentials Committee Chairman appoints a Hearing Committee to meet with the practitioner and his or her legal counsel. Witnesses may be requested to appear if necessary.
3. The Hearing Committee reviews all of the information and testimony and makes a recommendation to the Medical Facility Commander.
4. The Medical Facility Commander makes a decision on whether to restrict or suspend privileges.
5. If the practitioner disagrees with this decison, he/she may appeal to the Major Command Surgeon.
6. The Major Command Surgeon establishes a Command Appeals Committee. This Committee reviews the case and makes recommendations to the Major Command Surgeon.
7. The Major Command Surgeon reviews the case and makes a decision on whether to restrict or suspend privileges.
8. If the practitioner appeals this decision, the case goes to the Air Force Surgeon General.
9. The Air Force Surgeon General appoints a Surgeon General's Credentials Appeal Committee. This Committee reviews the case and makes recommendations to the Air Force Surgeon General.
10. The Air Force Surgeon General reviews all recommendations and makes the final decision.

Senator NUNN. How serious do you view the charges that have been raised about the current Surgeon General. What is the Air Force doing officially in this respect, if anything?

Secretary ORR. Any charges of this nature are taken seriously. The Air Force Inspector General is conducting a formal investigation into the administrative practices and management actions concerning the Dr. Stanford case. This will include many of the issues raised by the news media about the Surgeon General. In addition, under the auspices of the Inspector General, the Air Force has asked the Society of Thoracic Surgeons to conduct an independent review of the surgical cases of Dr. William Stanford. We need the facts concerning the alleged mortality rate from an independent professional source. We are in the process of working out the details with the Society.

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UNIT COST REPORTS

Senator NUNN. The Air Force has provided the initial notification that the 15 and 25 percent thresholds of unit cost growth have been breached on several Air Force procurement programs. I recognize that some of this is attributable to more realistic pricing but the detailed reports to follow will have the detailed explanation.

There is one aspect on which I would appreciate some elaboration. For example, the F-15 program has increased over 25 percent and in your letter you state "this increase is due primarily to additional aircraft for the program and their required support equipment." The same is generally true about the over 25 percent increase in the F-16 program.

I have two questions: what are the percentage growth for the F-15 and F-16 and how does increasing the number of units increase the unit costs, especially for these programs that have been in production for many years and the pricing should be stable?

Secretary ORR. The percentage cost growth for the F-15 and the F-16 measured in terms of Total Program Unit Acquisition Cost (TPUAC) is being re-evaluated and will be provided when complete.

TPUAC measures cost growth in terms of then year dollars. Increasing quantities in the outyears for relatively stable procurement programs such as the F-15 and F-16 may cause a projection of a system's TPUAC to exceed the established threshold even though the unit costs remain quite stable in terms of constant dollars. For the F-15 and F-16, the most significant part of the increases in TPUAC is the culmulative effects of inflation in the outyears applied to the additional quantities.

NEW ARMY DOCTRINE

Senator NUNN. General Meyer testified yesterday about the changes in Army doctrine that are occurring and about the work being done on the Air/Land Battle of the future. Is the Air Force working closely with the Army on these changes? For example, these shifts would require that the Air Force shift their targeting policy to some degree (e.g. not just destroy every bridge, only those high value bridges that might delay the enemy at the appropriate time).

The point is: are the Air Force and the Army is sync and working together on these changes which have the potential to dramatically increase combat capability?

General ALLEN. Yes. The Air Force Tactical Air Command works directly with U.S. Army Training and Doctrine Command to identify the impact of, and Service requirements for, all changes in either Army or Air Force doctrine.

C-5B

Senator NUNN. I understand that there is some discussion as to whether or not the C-5B program will require any R. & D. and what exactly the fiscal year 1983

budget request will do? I have seen some statements that the C–5B will cost $430 million apiece, which is a figure you can arrive at by dividing the 2 aircraft to be procured with 1983 funds into the $860 million requested. In addition, there is no budget request for R. & D. in fiscal year 1983 or fiscal year 1982 that I know about.

Could you clarify this? What is the breakout of the $860 million for fiscal year 1983?

General ALLEN. The C–5B program does not include any research and development activity. The fiscal year 1983 request funds the restart of the C–5 production line and purchases the first two aircraft. It is predicated on an additional $270 million being made available through reprograming and budget supplemental action in fiscal year 1982. A general breakout of the $860 million requested in fiscal year 1983 follows:

	Millions
Nonrecurring start-up costs	$254
Recurring cost for two aircraft	376
Other government costs	70
Advanced procurement for subsequent buys	100
Initial spares	60
Total	860

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

OVERALL DEFENSE STRATEGY ISSUES

Senator LEVIN. General Allen, last year I asked each of the service chiefs whether he felt his service along with its allied counterparts was militarily inferior to the same services belonging to the Soviets and their Warsaw Pact allies. This year, what is your response?

General ALLEN. Superiority is, of course, an imprecise term and the outcome of any conflict is very scenario dependent. In strategic nuclear forces, the balance has shifted in favor of the Soviet Union. Because of the steady modernization and expansion of Soviet strategic nuclear forces, the Soviets enjoy an edge in certain strategic capabilities such as deliverable megatonnage and prompt hard target destruction potential. Moreover, because of the momentum of on-going Soviet programs, the Russians will gain significant strategic superiority during this decade should we fail to proceed vigorously with the President's strategic modernization program.

With respect to theater forces, the Warsaw Pact forces arranged along the Germany border enjoy a substantial numerical advantage in army divisions, tanks, aircraft and theater nuclear forces. Distances involved and limited numbers of forward deployed forces make our defense tasks particularly difficult in Southwest Asia and the Far East.

Despite the Soviet-Warsaw Pact numerical and geographic advantages, I do not believe their air forces are militarily superior to the combined capability of us and our allies. In view of the Soviet's ability to pick the time and place of attack and their substantial edge in forward ground forces, added burdens are placed on our tactical air forces. Allied air forces must not only be able to win the battle of the air, but also provide offensive air support for our land forces and effective interdiction of reinforcing Soviet divisions.

We have made real progress in the last two years through improvements in modernization, readiness and sustainability. I remain convinced that our people and quality of equipment give us the competitive edge, an edge we must maintain to deter, and if necessary, defeat Warsaw Pact forces which are steadily increasing in capability.

TRADE FORCES

Senator LEVIN. When I asked you whether you would trade the U.S. Air Force—its weapons, personnel, mission, entire range of capabilities, strengths and weaknesses—for its Soviet counterpart, you said "no." Would you still refuse to trade?

General ALLEN. I still refuse to trade. I remain convinced that our people and our individual weapons systems are superior.

However, the Soviets substantially outnumber us in virtually all personnel and equipment categories; and areas of vital interest to the United States and of potential conflict are much closer to the USSR than to us. These factors require us to obtain more combat capability and mobility from our smaller and largely U.S. based forces. Moreover, Soviet capabilities continue to grow, making it imperative that we, too, continually improve our strategic and general purpose forces.

SIMULTANEOUS WAR

Senator LEVIN. A number of observers of defense matters are beginning to question whether the present administration's defense strategy—to build a military establishment to fight the Soviets anywhere, everywhere, anytime, and all at once—makes sense militarily and economically.

The latest issue of Air Force Magazine, February 1982, the voice of the Air Force Association and certainly no pacifist group, recently carried the following "Washington Observation":

The Reagan administration's recent decision to promulgate without fanfare a global strategy of meeting adversaries head-on and simultaneously—as opposed to the two-and-a-half war postures of previous administrations—may lead to geostrategic overextension on the part of the United States.

Do you think it is necessary that the United States be capable of engaging the Soviets in major wars throughout the world simultaneously? Do you think the Soviets even can simultaneously mount and sustain such a threat?

General ALLEN. The Reagan administration has embarked on a program to rebuild our defense capability and strengthen our alliances to counter a very real increase in Soviet capabilities. The Soviets do have sufficient forces to simultaneously attack in more than a single region, and they have developed a substantial force projection capability. Thus, we could be faced with simultaneous major offensives.

Their ability to sustain an offensive in more than one region, however, depends on many factors, the Free World's capability to counter such attacks and the strengths and weaknesses of their own logistics system being the primary considerations. If we could only respond in a single region, they might believe they could score major successes in other areas.

We have designed our forces to be able to meet the most demanding threat, that of a major Soviet offensive in Europe, since that is where the major concentration of Soviet forces lies. At the same time, we are attempting to maintain effective deterrent forces in the Far East and to improve our force projection capability to counter Soviet aggression in Southwest Asia or elsewhere.

Should we be faced with simultaneous Soviet attacks in more than one region, our forces would be severely stretched.

REGIONAL PRIORITIES

Senator LEVIN. Which regions of the world do you regard as the most important to the security of the United States and its allies, and in which order?

In which is the USAF most capable of fulfilling the defense missions assigned to it for that region. The least capable? How do its capabilities to fulfill its assigned missions in the other regions you think most important compare to those in these two regions? What are its major strengths and most serious weaknesses in each of the regions of the world which you think are most important to U.S./allied security?

General ALLEN. Prioritization among regions is a difficult and uncertain undertaking, and, of course, is highly scenario dependent. Our defense afforts relate not only to the importance of United States interests in a particular area, but also to the perceived military threat to that area, principally from Soviet or Soviet supported forces.

After the defense of North America, our priority efforts are directed toward maintaining the security and territorial integrity of NATO Europe. Our nation has extensive cultural and economic ties to Europe and a long-Standing commitment, expressed in the North Atlantic Treaty, to defend this region. The greatest concentration of Soviet forces confront us in Central Europe and this concentration presents us with our most demanding defense challenges.

USAF capabilities in Europe are substantial and growing, but for successful defense we are dependent upon rapid reinforcement from the U.S. In addition to deploying reinforcing air units, we must airlift army troops and equipment during the critical early days of conflict. Our force deficiencies include limited capabilities to fight at night and under weather, insufficient basing facilities for reinforcing air units and shortages of spares and munitions for sustained operations.

Southwest Asia has become of increased importance to Western security because of its oil resources, the continuing risk of major conflict in that region and the potential for further Soviet aggression in this important area. We cannot permit the vital oil resources of this region to come under direct or indirect control of the Soviet Union.

We are building a capability, including forward base facilities and a logistics infrastructure as well as deployable forces, to respond rapidly to Soviet aggression in Southwest Asia. While we are making significant progress in improving our rapid

response capabilities for Southwest Asia, the lack of strong, allied military forces in the area, very limited support facilities and insufficient mobility forces are constraining factors.

Deterring Communist aggression in Northeast Asia remains an important United States security objective. We are linked to Japan and South Korea by mutual security pacts and have deployed U.S. forces in that region for over three decades. USAF capabilities in the region are not sufficient to counter major aggression and would require prompt reinforcement to meet a North Korean and/or Soviet attack. Again, additional airlift would be critical.

Finally, maintaining peace and deterring outside intervention in Latin America remains a key U.S. security aim. Because of the increased anti-Western activity in Central America in recent years, aided and abetted by Cuba, and increased Soviet activity in the Caribbean basin, we need to improve our very limited defense capabilities in the Caribbean-Central American area—an area long neglected.

MARITIME SUPREMACY

Senator LEVIN. Defense experts also are beginning to question the supposed "maritime supremacy" strategy of the present administration. They worry that its preoccupation with building a Navy structured around enormously expensive nuclear carrier battle groups will divert resources away from meeting Army and Air Force needs and actually reduce our capabilities to defend the Persian Gulf and NATO Europe.

Under the 5-year defense program submitted by the administration, will the AF be able to carry out successfully its assigned responsibilities in defending the Persian Gulf and NATO Europe? If not, in which region and in which mission responsibilities will it fail?

General ALLEN. Successful defense of our national interests in NATO and Southwest Asia is highly scenario dependent. The budget increases of the last two years and the improvements planned in the 1983-87 FYDP will, if followed through, enable us to correct long-standing deficiencies in our military forces and provide a strong deterrent and, if conflict should arise, the capability to provide effective defense against Soviet aggression in both NATO and Southwest Asia. Strong forward deployed forces coupled with a rapid reinforcement capability provide the most effective deterrent to Soviet aggression. Even with our planned improvements our forces will remain stretched thin compared to our defense responsibilities. Simultaneous major conficts in separate regions would leave us short of forces needed for successful defense. [Deleted.]

ADDITIONAL SPENDING

Senator LEVIN. What additional spending for what specific programs in each of these 5 fiscal years, especially fiscal year 1983, would be needed to enable the AF to carry out its assigned missions in the Persian Gulf and NATO Europe?

Did the AF seek any of this additional spending in its budget request to the Office of the Secretary of Defense? What reasons were given as to why any of this funding was denied? Do you know whether it was to fund "maritime supremacy" programs for the Navy?

General ALLEN. The Air Force has developed a number of programs to enhance our capabilities in NATO and Southwest Asia. Primary areas of emphasis are the readiness and sustainability of our forces, our force projection capability, improved support and basing for the RDJTF and Strategic Projection Force (SPF), and the modernization and modest expansion of our force structure.

A major deficiency to carrying out our assigned mission in the Persian Gulf and NATO Europe is our inadequacy in long-range airlift. The planned procurement of additional KC-10's and C-5B's is a significant step toward closing the gap.

The Air Force budget proposals were carefully considered by the Defense Resources Board (DRB) which in turn, made recommendations to the Secretary of Defense. Trade-offs among Service programs and between Services were considered in terms of their individual contributions to the nation's overall defense capability.

SOVIET ADVANTAGES

Senator LEVIN. General Allen, your statement is replete with references to the strategic balance and there are many statements implying we are inferior to the Soviets in overall strategic nuclear capabilities.

On page 4, you say: "The steady expansion and modernization of Soviet strategic forces has brought about a dramatic shift in the strategic balance. The momentum of Soviet programs has begun to tilt that equation significantly in Moscow's favor."

On page 6, you state: "Gone is the clear cut U.S. superiority of the 1960s and the rough parity of the late 1970s. today Moscow enjoys a position of some advantage * * *."

We now have a new measure of the strategic balance: "some advantage." Does this mean the Soviets have superiority and that we are inferior?

General ALLEN. The term "some advantage" is not intended to provide a new measure of the strategic balance. The strategic balance is dynamic in nature, and there are numerous methods for comparing various measures of strategic nuclear capability (i.e., equivalent megatons, prompt hard-target kill capability, etc.). When viewed individually or in certain combinations, the "balance" will favor either the United States or the Soviets. When viewed collectively, a growing number of these measures reflect Soviet advantages and thus on aggregate position of some superiority over the United States. Of most concern is the trend in Soviet strategic programs which, if not checked by long-term improvements in our strategic posture, will result in substantial U.S. inferiority in the future.

RETIREMENT OF B-52DS

Senator LEVIN. General Allen, despite strong Congressional direction to keep all our B-52D squadrons operating until the B-1 IOC in late 1986, the Air Force yesterday announced it was retiring three of the five B-52D squadrons later this year or early next year.

In its announcement, the AF said: "The retirement of three B-52D squadrons will free up critical resources for higher priority programs which are designed to end the decline in U.S. strategic capability * * *."

However, Congress was very clear in its direction to the AF in the Conference Report on the fiscal year 1982 DOD Appropriations Act:

The conferees agree that the B-52D's should be continued in operation until such time as the B-1 or other new strategic bomber becomes available. At that time existing B-52G and H model aircraft currently devoted to SIOP missions can be freed and programmed for the conventional warfare role. The B-52D's are to be retained and supported as planned in the original President's budget submission.

Why is the AF ignoring the directly expressed will of Congress by retiring these squadrons of B-52D's in 1982 and 1983?

General ALLEN. We are continuing to operate some B-52D's until the B-1B becomes available in fiscal year 1986. Maintaining all five squadrons would be a less-than-efficient use of money. By retiring three squadrons in fiscal year 1983 we can free $1.2 billion, 84 tankers, and several hundred trained people for more effective programs.

B-52 REPROGRAMING

Senator LEVIN. The $62 million added by my amendment to the fiscal year 1982 DOD Appropriations Act on the Senate side, which ensured its inclusion in the final bill since the House already had included it, was supposed to finance purchase of spares for the B-52D's to keep them operating in fiscal year 1983 and beyond. This is because there is a two year lead time between appropriation and delivery of these spares. All this information came from the Air Force.

If you intend to retire three squadrons of B-52D's, are you going to seek a reprograming of the money or a recision?

Your rationale for retiring the B-52D's is that there are higher priority needs which must be financed and therefore you are retiring these aircraft to find the money to fund these needs.

Since Congress specifically gave you money last year to continue operating the B-52D's through fiscal year 1982 and ordered you to put money in the budget to maintain them through fiscal year 1986—with the clear implication we would approve such funding—why should you be concerned that there would be insufficient funding available for other programs as well as the B-52D's?

General ALLEN. In accordance with congressional direction, we are retaining all of the B-52D's throughout fiscal year 1982. We plan to retire 3 squadrons of B-52D's in fiscal year 1983 while retaining the remaining 2 squadrons until fiscal year 1985 and fiscal year 1986 respectively. As you are well aware, budget preparation involves making choices between important programs competing for limited resources. These retirements of the oldest B-52D's in fiscal year 1983 will be undertaken as a cost saving measure associated with our bomber modernization efforts that include

the deployment of ALCM's, continued research on the Advanced Technology Bomber, and production of the B–1B which will be operationally deployed in 1986. In view of the limited and decreasing contribution of the B–52D's in meeting our defense needs and the increasing cost and difficulty of maintaining these aging aircraft, we believe it makes more sense to invest the $1.2B required to operate these three B–52D squadrons through fiscal year 1986 in programs that would provide a greater, more cost-effective contribution.

Of the $62 million added for the B–52D's, the Air Force is examining various modification alternatives which could be undertaken with the $12 million earmarked for this purpose. Since we intend to obtain any spares required for the 2 remaining active squadrons from those already on order or from the 3 squadrons retired in fiscal year 1983, we propose to use the $50 million appropriated for spares to purchase B–52 war reserve materiels to support the Strategic Projection Force.

BOMBERS

Senator LEVIN. Late last year, when the administration was selling the B–1 program, it said that the Stealth bomber would be deployed "in the early 1990's" even though there was strong evidence it could be deployed before then. On page 9 of your statement, you now say the Stealth bomber IOC is "in the 1990's." Have you again slipped the Stealth bomber IOC to further prevent it from competing with the B–1? Can you assure us that the Stealth bomber IOC, which is classified, is the same now as it was in Sept./Oct. 1981?

General ALLEN. There has been no delay in our plans for an advanced technology bomber; the projected IOC remains as we described it last fall at the time of the President's decision on strategic modernization.

SUPERHARDENING MX

Senator LEVIN. Last year, when the administration announced its decision to base MX in superhardened silos, it defended that decision to our committee as follows:

Secretary Weinberger on October 5, 1981: "We go back to the point that we believe that the hardening to the extent of the 5,000 PSI of some of the silos into which we would deploy some of the MX missiles as they come off the line would get us a few more very valuable years * * *. What we say is that we will gain a few years, they are very valuable years, it is a big gain."

This gain supposedly was to be in strategic capability or in the strategic balance during the supposed "window of vulnerability."

Mr. Secretary, according to recent AF briefings, the AF has decided against superhardening any silos as its interim MX basing mode.

Why was this decision made, considering we would be giving up a "big gain" and some "very valuable years" of strategic capability according to Secretary Weinberger?

Are you saying that the Secretary was incorrect in his statements to the Committee that fall—that it was not much of a gain, if any at all, and that it is not worth the money to superharden?

Secretary ORR. The decision not to superharden the silos as an interim measure was in response to the restrictive language contained in the Nunn/Cohen Amendment to the fiscal year 1982 Defense Appropriations Bill.

Complying with the sense of the Congress, Secretary Weinberger reevaluated the effectiveness of hardness and restructured the MX interim basing program to eliminate superhardening of the Minuteman silos used for this effort. At the same time, he directed that we continue to explore the possibility of superhardening in the context of defended deceptive basing as one of the long-term solutions to ICBM vulnerability.

FUNDING NONSURVIVABLE SILOS

Senator LEVIN. Even without superhardening, the AF plans to spend $4.3 billion base MX in hard Minuteman silos. If the decision not to superharden is a ratification of the alleged vulnerability of these silos, why should we spend so much money on a non-survivable basing mode which gains us even less than superhardening, which you now say gains us nothing?

General ALLEN. Deployment of a minimum of 40 MX in existing silos is an important initial step toward strengthening our strategic forces. It will complicate and add uncertainty to Soviet attack calculations, thus enhancing deterrence. Importantly, it is a needed early step toward counterbalancing the Soviet advantage in prompt hard target destruction capabilities. With greater accuracy and about three

times as many warheads are the Minuteman, the MX will confront the Soviets with some of the vulnerability problems their SS–18 and SS–19 ICBM's present to us. Moreover, proceeding without delay with the MX program will demonstrate our commitment to restore the strategic balance and maintain effective U.S. strategic forces. It will thus provide the Soviets with a real incentive to negotiate seriously toward equitable and verifiable arms reduction agreements.

Regarding the $4.3 billion constant fiscal year 1982 dollars estimated for MX missile basing, $.9 billion has been spent previously. Of the remaining $3.4 billion, about $.7 billion is required for modification of Minuteman silos. Most of the basing costs are related to R.D.T. & E. and procurement of infrastructures for supporting MX missile basing in its general sense.

MX BASING MODES

Senator LEVIN. General Allen, let me ask you some questions about the MX basing mode decisions confronting us.

The administration has proposed choosing among the continuous patrol aircraft, ballistic missile defense and deep underground basing for a permanent home for the MX missile. Two of these have been rejected before because of a host of military-effectiveness and cost-effectiveness problems—deep underground basing and air mobility.

I understand that the continuous patrol aircraft concept is different from the previously rejected air mobile concept, but all that does is raise a new host of technical problems.

The third basing mode—ballistic missile defense—still is an unproven technology in many crucial respects. Even though significant progress has been made in developing the low altitude system (LoADS), it promises to be ineffective by itself in protection silos since it depended heavily on the deception of a multiple protective shelter basing mode.

The layered defense, which used LoADS with another high-altitude system to intercept incoming warheads in space, is an extremely high risk system from both scientific and technical viewpoints, primarily because the space-intercept component is at the very "frontier" of technology which has yet to be proved.

Which of these three basing modes do you think has the best potential for proving itself technologically, financially and militarily, and thus solving our MX basing problem?

General ALLEN. The three long-term MX basing options announced by the President each have unique features which led to their selection.

Continuous Patrol Aircraft (CPA) survivability theoretically derives from the launch vehicle being continuously airborne. Patrol areas would be over ocean areas away from the continental United States which minimizes environmental impact. New composite materials technology could allow a continuous patrol duration time of up to 90 hours.

We had hoped to develop the CPA concept further along with other basing concepts looking toward selection of a long term mode for further development in July of 1983. However, restrictions contained in the fiscal year 1982 DOD Authorization Conference Report prohibit the expenditure of funds for work on CPA in fiscal year 1982. We are working with the Congress to resolve this problem.

We may be able to achieve enduring survivability through Deep Basing. MX Missiles would be placed 2000–3000 feet underground, rendering them invulnerable to attack. Several concepts are being examined including deep tunnels, citadels deep underground and basing under mesas. Further, we believe that new tunneling and excavation technology may permit rapid post attack egress.

Ballistic Missile Defense (BMD) technology has continued to evolve over the past decade since the signing of the 1972 ABM Treaty. You are correct in noting that this technology is not yet mature in some areas; however, BMD, if successfuly developed, deployment could extract a high attack price from the Soviets if combined with some form of deceptive MX basing.

All promising concepts are being given an equal chance to compete. We plan to conduct a preliminary assessment by late summer that will narrow the number of candidate long term basing modes. Those concepts that emerge from this assessment will then be subjected to rigorous examination, followed by an assessment based on strict operational, cost and effectiveness criteria.

The option or options that are finally selected will then be provided to the President for his decision in mid 1983. Consequently, until we are further along with this process, it would not be prudent to speculate on which approach might or might not be the best.

MX FUNDING

Senator LEVIN. You are proposing in this fiscal year 1983 budget some $1.4 billion to build nine MX missiles—each of them 192,000 pounds heavy and some 92 feet long.

Considering that you have yet to choose a permanent basing mode and will not do so until June 1983, with only three months left in fiscal year 1983, why should we give you money in fiscal year 1983 to build a missile whose large size and weight might create serious design and cost problems for any of the basing modes you might choose—especially the continuous patrol aircraft and deep underground basing? Even BMD would be easier, if you were defending deceptive basing, if you had to move a smaller missile, would it not?

General ALLEN. The MX missile was specifically designed to be compatible with a variety of basing modes, including deceptive concepts. Therefore, the size and weight of the MX missile should not create serious design and cost problems for the long-term basing modes currently under study. While a smaller missile could be similarly designed, a new development program would be required which would take several years longer than to complete development and deploy MX. Moreover, a smaller missile would have to be deployed in greater numbers than MX to achieve the same retaliatory capability, creating additional construction, operations, and support costs. And, as far as the ballistic missile defense of a deceptively based MX is concerned, we are not aware of any advantages that would result from defending offensive missiles smaller than MX.

MX BASING SELECTION

Senator LEVIN. Four years ago, this committee refused to authorize significant funds for the MX missile until a permanent basing mode was selected. Why shouldn't we repeat this practice this year, considering the extra cost and technical cost and technical problems which might be caused by trying to adapt the permanent basing mode to the large missile?

General ALLEN. For years we have put off modernizing the existing ICBM force and further delay of the MX missile would represent a serious step back from the President's Strategic Modernization program. We cannot afford to delay further the fielding of the MX, which is a critical element in our efforts to restore an adequate strategic balance with the Soviet Union and to strengthen our nuclear deterrent. Rather, we should proceed with the proposed two-step plan which calls for timely deployment of the MX missile in existing Minuteman silos beginning in 1986, followed by its deployment in a long term, survivable basing configuration in the late eighties or early nineties. This phased approach will break the Soviet monopoly on prompt hard target capability in the middle of the decade and clearly signal our commitment to restore U.S. strategic strength. As such it will improve our chances of negotiating meaningful, equitable and verifiable strategic arms reductions with the Soviets. With regard to long term basing, we will assure that basing modes developed and eventually selected are readily compatible with the MX missile thus minimizing any missile adaptation which might be required.

MORE ABM

Senator LEVIN. Lost in the debate about whether to pursue a ballistic missile defense system seems to be the realization that, should we decide to pursue such a system which requires abrogation or significant modification of the ABM Treaty, we have caused ourselves another significant problem as we try to solve the ICBM basing mode dilemma.

If the treaty is abrogated or modified, this would permit the Soviets to deploy a ballistic missile defense system also, would it not?

Since they have been conducting a more vigorous BMD research program than we have in the past, even though we are technologically ahead of them, this means they might be able to deploy an extensive system more quickly than we might, does it not?

Such a system could significantly reduce the penetration and effectiveness of our own missile warheads attacking the USSR, could it not?

Secretary ORR. The Soviets presently have a deployed BMD system around Moscow. If we were to abrogate the ABM Treaty, the Soviets would have the option to deploy additional ABM systems. If the treaty were modified, the Soviets could choose to deploy additional systems depending on the modifications agreed upon between the United States and the USSR. However, the quality and effectiveness of such a system would be uncertain. As any increase in Soviet ABM systems has the

potential to degrade the effectiveness of the missile warheads, we are continuing research efforts on penetration techniques to assure that we would be able to overcome such defenses should the need arise.

SOVIET BMD

Senator LEVIN. Even if it were not completely effective in protecting the U.S.S.R. from American warheads, our confidence in the military effectiveness of our warheads would be reduced by the deployment of an extensive Soviet BMD system, would it not?

In order to compensate for either a reduction in the military effectiveness of our warheads or our confidence in them, we would have to greatly expand our strategic arsenal as a "hedge" against the Soviet BMD system, would we not?

If we did not expand the arsenal, we probably would have to greatly increase our R. & D. on advanced penetration measures for our warheads, such as decoys or maneuvering warheads, would we not?

Secretary ORR. Expanded Soviet BMD deployment, beyond the limits of the ABM Treaty, would require us to take steps to preserve the military effectiveness of our ballistic missile arsenal. The top priority of the Air Force's Advanced Strategic Missile Systems program is the development of MX defense penetration systems that are also adaptable to Minuteman III. We plan to maintain this level of effort to permit the Air Force to deploy effective ICBM penetration systems rapidly should such a threat materialize.

ABM TREATY

Senator LEVIN. On page 7 of your statement, Secretary Orr, you discuss Soviet ballistic missile defense activities and say:

"While complying with the 1972 ABM Treaty, they have continued vigorous research and development on ballistic missile defenses * * *."

This if the first time I have ever heard anyone in the Reagan administration state openly that the Soviets have not violated the ABM Treaty. When was this significant conclusion reached?

Secretary ORR. While issues regarding Soviet testing practices have been discussed within the Standing Consultative Commission on various occasions over the years, to my knowledge, neither the Reagan Administration nor previous administrations have officially stated that the Soviet Union is not incompliance with the ABM Treaty.

MX COST

Senator LEVIN. What is the estimated cost (base year and then year dollars) of the new MX weapon system program?

(1) Total by appropriation.
(2) Total by year.
(3) Total divided into missile and basing segments
(4) Total for silo modification, including the major elements of cost.
(5) Total for continous patrol aircraft.
(6) Total for deep underground basing.
(7) Total for ballistic missile defense.

Secretary ORR.

1.—TOTAL BY APPROPRIATION (NEAR-TERM SILO BASING)

[In billions of dollars]

	Fiscal year—		Then years
	1978	1982	
R. D. T. & E	7.0	9.8	10.4
Procurement	6.1	8.6	[1] 11.8
Milcon	.7	.9	1.1
Total	13.8	19.3	23.3

[1] Includes funds for procurement of the 226 missiles—missiles intended for deployment in both near-term and long-term basing modes.

2.—TOTAL BY YEAR (NEAR-TERM SILO BASING)

[In billions of dollars and fiscal years]

	1981 and prior	1982	1983	1984	1985	1986	1987	Total
Base year 1978	1.92	1.41	2.62	3.09	2.15	1.59	1.01	13.8
1982	2.58	1.97	3.65	4.36	3.03	3.23	1.43	19.3
Then year	2.49	1.97	4.46	5.13	3.87	3.17	2.22	23.3

3.—TOTAL DIVIDED INTO MISSILE AND BASING SEGMENTS (NEAR-TERM SILO BASING)

[In billions of dollars]

	Fiscal year 1978		Fiscal year 1982	
	Missile	Basing	Missile	Basing
R. & D	5.6	1.4	7.8	2.0
Procurement	5.0	1.1	7.1	1.5
Milcon	.1	.6	.1	.8
Total	10.7	3.1	15.0	4.3

4.—TOTAL FOR SILO MODIFICATION, INCLUDING THE MAJOR ELEMENTS OF COST (INTERIM SILO BASING)

[In billions of dollars]

	Fiscal year—	
	1978	1982
Procurement	0.5	0.7
Construction	.02	.05
Total	[1] .52	[2] .75

[1] Equates to 13.0 million per silo.
[2] Equates to 18.7 million per silo.

Total program costs cannot be determined for the survivable basing options until concepts currently being developed have been evaluated and costed. We expect to derive such cost estimates over the course of the next 18 months as recommendations for long-term basing are being prepared for the President's consideration. Fiscal year 1982 and fiscal year 1983 funding estimates are provided below.

[In millions of dollars]

	Fical year—	
	1982	1983
Fiscal year 1982:		
Continuous patrol aircraft	10	74
Deep basing	28.5	127
Ballistic missile defense of fixed and/or deceptively based ICBM's	25	109

B-1 FUNDING

Senator LEVIN. Mr. Secretary there continues to be concern over the adequacy of funding of the B-1 program, especially ancillary activities necessary to introduce

the B-1 and meet DOD delivery schedules. In order to clear up any misunderstanding, please provide for the record the following:

What has AF budgeted over the next five years (by year) for B-1 related activities in the following areas:

Support Equipment
Initial Spares
Replenishment Spares
Component Improvement Program for the Engines
Initial Contractor Support
3300 Account Support

Secretary ORR. Several efforts are underway to define the B-1B support requirements. Among them are the logistics support package, military construction basing plans, and military personnel movements. Until these efforts are completed, budget estimates of replenishment spares, initial contractor support, and 3300 account support are subject to change. In fiscal year 1983, we have identified an additional $335.4 million as our initial support package. Additional funding will be specified as requirements are precisely defined. At this time, we believe total five-year cost for support to be in the neighborhood of $2.5 to 3.0B.

The President's Budget contains costing/estimates for B-1B initial spares as follows:

Then-year dollars in billions

Fiscal year:	*Initial spare*
1982	.....
1983	165.4
1984	801.3
1985	408.3
1986	175.0
1987	.....
Total	1550.0

The engine component improvement program for the F-101-GE-102 engine is planned to begin in fiscal year 1985 at which time budgetary estimates will be available.

B-1 FUNDING SUFFICIENCY

Senator LEVIN. Is the current level of funding in the DOD Budget for these categories sufficient to meet in fiscal year 1986 IOC for the B-1?

Secretary ORR. Yes. Based on 10 years of research and development and 6 years of flight test, we believe the current President's Budget contains the best available costing estimates for the B-1B support elements. As time evolves, we will acquire a better definition of support tasks required for the B-1B and will revise our estimates appropriately.

Of the six categories mentioned, only initial spares and support equipment are part of the $20.5 billion (fiscal year 1981 dollars) baseline. The Air Force is firmly committed to acquiring 100-1B's at or below that price. The other four areas are oriented more toward normal operations and support or contingency operations.

PLEDGE OF B-1 FUNDING

Senator LEVIN. The President's pledge was to limit funding to $20.5 billion in fiscal year 1981 dollars. Please provide the year-by-year (by appropriation sub-account) spread of funds in the DOD budget consistent with this program. Please show it in Base Year 1981 dollars and in inflated budget year dollars.

General ALLEN. The B-1B funding profile, in fiscal year 1981 and then-year dollars, is as follows:

B–1B FUNDING PROFILE

[In millions of dollars]

	Fiscal year—					Total [1]
	1983	1984	1985	1986	1987	
Fiscal year 1981:						
R.D.T. & E.	628.4	570.7	386.3	275.6	50.9	2,538.9
Production	2,891.9	3,727.2	4,725.7	4,243.1	.....	16,896.9
Initial spares	124.3	562.7	269.0	108.2	.....	1,064.2
Total	3,644.6	4,860.6	5,381.0	4,626.9	50.9	20,500.0
Then-year:						
R.D.T. & E.	753.5	717.9	508.4	379.2	73.1	3,122.1
Production	3,868.1	5,340.8	7,173.6	6,861.1	.....	24,865.5
Initial spares	165.4	801.3	408.3	175.0	.....	1,550.0
Total	4,787.0	6,860.0	8,090.3	7,415.3	73.1	29,537.6

[1] Totals include prior year appropriated amounts.

[Whereupon, at 12:50 p.m., the committee proceeded to other business.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, FEBRUARY 25, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

NAVY AND MARINE CORPS PROGRAMS

The committee met in open session, pursuant to notice at 10:07 a.m., in room 212, Russell Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Warner, Humphrey, Cohen, Jepsen, Quayle, Denton, Stennis, Byrd, Jr., Nunn, Hart, and Levin.

Staff present. Rhett B. Dawson, staff director and chief counsel, Francis J. Sullivan, minority staff director; James F. McGovern, general counsel; Paul C. Besozzi, minority counsel; Christine E. Cowart, chief clerk, Brenda K. Hudson, assistant chief clerk; Anthony J. Principi, counsel and Gerald D. Strickler, printing and documents clerk; Louis W. Arny III, Michael B. Donley Robert S. Dotson, Richard D. Finn, Frank J. Gaffney, James R. Locher III, David S. Lyles, José E. Martinez, Patrick L. Renehan, Carl M. Smith, and Kathleen Troia, professional staff members; Drew A. Harker, Mark B. Robinson, and Ralph O. White, research assistants; and Kimberly A. Manning, staff assistant.

Also present: Dennis P. Sharon, assistant to Senator Goldwater: Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Paul Schreiber, assistant to Senator Denton; Don Imgram, assistant to Senator Quayle; Michelle Robbins, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Arnold Punaro, assistant to Senator Nunn; Greg Pallas, assistant to Senator Exon; Peter Lennon, assistant to Senator Levin; Bill Lind, assistant to Senator Hart; and Will Ball, assistant to Senator Tower.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The committee will come to order.

On behalf of the committee I would like to welcome Secretary Lehman, Admiral Hayward, and General Barrow.

This morning we expect to receive testimony from each of you giving your professional assessment of the military challenge our Nation faces in the decade ahead and what must be done to assure

that our Navy and Marine forces are capable of meeting their responsibilities to provide for our Nation's defense.

Mr. Secretary, although you have been in office for only a year you have earned a well-deserved reputation as a strong and articulate Secretary of the Navy and an advocate of seapower. We look to you for a clear definition of the administration's new maritime strategy.

Admiral Hayward and General Barrow, your services have received increased support under the Reagan administration. We look forward to hearing your assessment of where we are today, the trends for the future and an overview of the program required.

Over the past couple of weeks we reviewed your initial budget submission and several items stand out. The shipbuilding account has doubled since last year, funds are requested for two *Nimitz* class aircraft carriers and also for two Trident submarines.

In the aircraft procurement account you have requested significantly greater funding for shipboard tactical aircraft. We are always aware that the Navy is reviewing the way it contracts ship construction and we would like to learn what results you have achieved.

Finally, it is clear that personnel retention remains a matter of high concern. I trust you will cover these items and others before us either here or before our subcommittee so that we will have a firm base on which to anchor the decision that we soon will have to make.

Let me underline the important reason for this budget request.

For too many years this country and the Congress has neglected to adequately finance the program we need to meet our validated defense requirements. Our shipbuilding program in particular was woefully inadequate and grossly underfunded. It is only one aspect of a much greater problem.

The Soviet Union follows a different path. It has invested tremendous sources of manpower and material over the past decade to accelerate their military development. As a result we are now witnessing the results of this investment. Their growth is rapid and increasing not only in quantity, but in quality as well. Some of their new ships and weapons have technology which is ahead of our own. We must not turn our back on the challenge this presents to our Nation's security. We can meet it, but it will require concerted effort on the part of both the Navy and the Congress.

Mr. Secretary, we have your statement before us. We also have the statements of Admiral Hayward and General Barrow. These statements will be entered in their entirety in the record. You may summarize them if you wish. In any case, you may proceed as you see fit.

Mr. Secretary?

STATEMENT OF HON. JOHN F. LEHMAN, JR., SECRETARY OF THE NAVY

Secretary LEHMAN. Mr. Chairman, thank you very much. It is a great pleasure to appear once again before the committee. It is a particular pleasure to have the opportunity 1 year after first ap-

pearing before the committee to give a progress report on where we are.

I would not propose to recapitulate at length the posture statement that has been provided. Let me just review very briefly the principal points of our Navy and Marine Corps' programs and try to emphasize to the committee that they are consistent, they are logical, and they are achievable.

As I am sure you have noted over the last year there is almost an unprecedented consensus and unity among our two naval services as to the nature of the task and how we are to achieve it. Whatever may have been true in the past of disagreements among the various parts of the services it is no longer true today.

The national security environment that really sets the task for us has not changed a great deal in the last 12 months. We have a security environment that has deteriorated in the last decade which provides the Navy and the Marine Corps the array of commitments that have to be met.

As you know, there are some 40 treaty commitments and other nontreaty commitments such as protection of our energy and resources supplies that are not sought by the Navy and Marine Corps. These are rather noncontroversial, nondebatable tasks that are given to us by the President and the Congress. They really are the first step in our arming and training and deciding what must be done and where resources must be placed.

To achieve the goals of meeting our commitments in the world we must derive a strategy. There has been some confusion, I believe, in recent months, particularly in the press, over the discussion of a strategy of maritime superiority. We have stated repeatedly, and I will restate this morning, that we must achieve clear maritime superiority, a simple term, which does not need a lot of qualification. I am surprised it is bringing about as much commentary as it has; because certainly since the Second World War it has been a strategy that has been beyond debate.

As you know, last year was the first time that the leadership of the Navy and the Marine Corps testified that we have lost maritime superiority—the first time in modern history. We have set out, as the unequivocal requirement for our naval services, to reacquire that maritime superiority and do it expeditiously. It is not a national strategy, if you will. It is a prerequisite for our national strategy, to attain maritime superiority. So that really sets the parameters of our task.

We must be capable and we must be seen to be capable of keeping our access secure to those specific areas of our vital interest and we have to do it in the face of the opposition that has been growing in recent years.

Maritime parity is a concept that is totally unacceptable for a maritime nation. It is we who depend on the seas. In short, maritime superiority is a security imperative, an essential condition for the success of our national strategy, whether it be oriented more toward one theater or alliance or another. It does not mean, as some have tried to characterize it in criticizing this objective, that we seek to be omnipresent all over the world in every ocean or to act as the world maritime policeman. It means that in those areas of our vital interests, and these are fairly noncontroversial, that we

can prevail if challenged against the combined military threat of our adversaries.

Geography, as I have said repeatedly, clearly favors the United States and its allies. We are the maritime alliance and it is geography that sets the parameters of our task. Essential to the successful achievement of this task is the naval rebuilding program that this administration has put forward. Also essential is the contributions of our allies which, as you know, Mr. Chairman, provide over 70 percent of the antisubmarine warfare forces that we depend on in the NATO theater. Indeed in every theater our friends and allies provide a major contribution within which our strategy can be set.

We depend very heavily on the contributions of our sister services, Air Force, land-based air, integrated with the naval forces as well as mobile Army forces; we are not talking about solely naval superiority. We are talking about being able to achieve the maritime objectives against the sustained threat.

It is intellectually nonsensical to suggest that parity could be put forward as a goal in the maritime field. Are we to accept the goal of a stalemate on the North Atlantic? Are we to accept the goal of stalemate in the Straits of Hormuz? Clearly that is folly. Maritime superiority is beyond debate. It is straightforward commonsense.

It is from the requirement of maritime superiority that we derive the force levels that make up the budget that we are putting before you today. We know what we have to do. Indeed, it is mandated to us by the national leadership. More importantly, we know how to achieve those goals through a strategy that will succeed. Because we are confident in that strategy we know what weapon systems we need to be successful.

We are not afforded the luxury of depending on speculation or on academic think tanks or computer simulations of how a war would be fought. We know how it would be fought. More than any other service, the two maritime services, Navy and Marine Corps, rub up against their potential adversaries every day, day in and day out. We know how good the other side is. We know which of its systems work and which don't. We know the vulnerabilities of their tactics, their methods and their systems and their strengths. The program we are putting before you today is not based on an ivory tower or systems analysis process to build a force structure. It is built on the cold pragmatic experience of dealing directly with our adversary every single day.

Similarly our research and development policy is formed by that same insight. It is that perspective above all that has led us to cancel some 40 programs over the last 12 months. We are reducing the number of programs in order to adequately fund those that we know from our experience must be developed to cope with the developing threat.

In readiness and sustainability we have not retreated from the emphasis that has been placed on restoring the deficits that have been built up over a long time. Starting with the 1981 supplemental and the 1982 budget we have begun to get substantially better. In every year of this 5-year plan we will continue the real absolute improvements in every one of our readiness accounts.

There is a myth about that we have sacrificed readiness, that we have reduced our emphasis on readiness and sustainability in order to fund the force expansion that is included in this budget. A look at the hard facts and where the dollars are will dismiss that myth.

In strategic nuclear forces, we have put forward a program that will accelerate some of our key programs and place increased emphasis on our command, control and communications, the vertical dimension of defense.

We are accelerating the initial operational capability of the D5 Trident II missile. Sealift forces are getting increased emphasis. We are creating some innovative programs in order to bring forward the IOC of more strategic lift and do it at a lower cost.

Finally, I would like to say that while our program is ambitious, with some 30 percent force expansion, 15 battle groups, a 600-ship Navy by 1989 and the reduction of our personnel deficits, petty officer shortfall, it can be achieved in the budget we have put forward and in the 5-year plan and follow-on budgets under the growth guidance given to us by the President.

I think it would be one of history's great tragedies to see the momentum lost that really began in this committee, continued with the two Reagan initiatives last year, the 1981 supplemental and the 1982 revision, and now this third Reagan defense budget in 1983. Any substantial cuts in this program would be, in my judgment, the end of the last chance to really turn around the security situation that this country has found itself in, because it will destroy the business integrity of the initiatives we have begun. It will force us to drop the contracting, the business management and the economies off-scale we have set in motion and in many cases achieved, that enable us to say that we can afford this program within the budget provided.

So, I would urge you, Mr. Chairman, to lend every effort to whatever changes are made in the program and not to have the momentum of this recovery, so successful in the last 12 months, be undercut.

Thank you very much, Mr. Chairman.

[The prepared statement of Secretary of the Navy, John F. Lehman, Jr., follows:]

PREPARED STATEMENT BY HON. JOHN F. LEHMAN, JR.

INTRODUCTION

Mr. Chairman, I am pleased to have this opportunity to present my assessment of the current posture of our United States Navy.

One year ago I fulfilled, for the first time, my responsibility of assessing the current posture of our Naval forces. I described the state of the maritime balance and set forth the policies, directions, and plans for the Navy and the Marine Corps. You will recall that the news was grim. For the first time in postwar history, Navy's leadership testified that we had lost maritime superiority. We documented the state of the adverse balance and reviewed the causes. More importantly, we proposed an essential and workable plan to set about regaining what had been lost. One year later we are able to bring better news. While the objective maritime balance is not measurably improved, we are well along in our endeavor to set it right. In this posture statement, I shall be describing the third budget that we have fashioned for our Navy-Marine Corps recovery program. The fiscal 1983 budget will complete the establishment of the principal initiatives begun in the Reagan '81 Supplemental and the revision of the 1982 Budget.

THE NATIONAL SECURITY ENVIRONMENT

Heightened debate on the relative priority of government services will surround this year's budget. With the rate of growth of government spending on social services being curtailed, many have said that defense should "take its fair share of cuts." Such critics, however, must keep in mind that defense is the first and most vital of all social services and has taken far more than its "fair share" of cuts over the last 15 years. As a nation, we have foolishly dissipated our margin of safety. We cannot afford to put off recovery.

Our great nation can clearly afford the increases requested in the fiscal year 1983 budget. The requested levels of defense spending—whether measured in terms of the Defense share of the total federal budget or of the GNP—will not reach the levels that our nation demonstrated as affordable in the 50's and 60's—an era when the international situation was less tense and our relative position in the world was far more secure.

In 1970, the defense budget was about 40 percent of the federal budget. Today, defense expenditures are only about 25 percent of the federal budget. In 1986, expenditures are projected to be only about 37 percent and will fail to reach the level of a decade ago. Defense spending for the next five years will take a lower share of the GNP than during the peacetime periods of the 50's and 60's. The Administration's promise to "re-arm America" would return this nation to a level of defense expenditure that would approximate those of the 1960's. Today our security alliance system of some 40 nations displays factionalism and increased dissent. Relations with many have become increasingly brittle. Yet, at the same time, the development of our industry and the patterns of our economy have made us dramatically more dependent upon overseas energy sources, resources and commerce. Whereas, a little over a decade ago we imported approximately 20 percent of our oil requirements, now we import nearly half. Today, of 27 critical minerals and metals, we are essentially dependent on foreign sources for all but three.

While the military balance cannot, of course, explain entirely the causality of the shift, nevertheless the steady decline in our naval forces during that period, carried out concurrently with a relentless buildup of Soviet maritime strength, has been a factor in it.

Recognizing America's historic and growing dependency on the free use of the seas—its need for allies, for resources, for energy and for commerce, the Soviets have taken advantage of the attractive opportunity provided by our halving of American naval forces. Today they possess the world's largest modern navy, as measured by total ships. No longer a coastal defensive force, it is a global blue-water offensive maritime force that, in addition to defending its own assets, is designed, equipped and trained to interdict our vital lifelines and access to the world; to dispossess us of allies, resources, and trade. In short, if our deterrence fails—to strangle us.

Even the last five years have rapidly altered the world environment. For the first time in recent history, there is a permanent offensively capable Soviet fleet, including a VSTOL aircraft carrier, in the Western Pacific—with the added benefit of the warm water ports of Vietnam. With Anchorage only 2,000 miles from the major Soviet fleet operating base, Petropavlovsk, and with Japan, Korea, and our other Asian friends and allies dependent on our securing the sea lanes, the flexibility of past decades in using our Pacific fleet as a reserve for other areas such as a NATO conflict, leaving the Pacific sea lanes undefended, is no out of the question.

CLEAR MARITIME SUPERIORITY

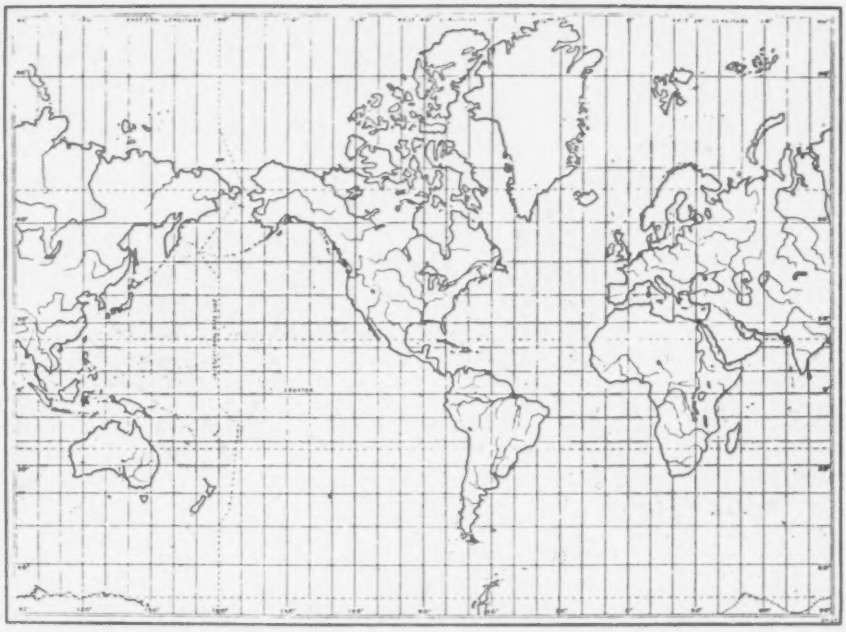
To restore stability to the international environment, to return again to an environment in which freedom can flourish and totalitarianism decline, America must regain that condition which Thucydides, Scipio, Sir Walter Raleigh, Lord Nelson and Alfred Mahan have seen as indispensable to a maritime nation's survival, "command of the seas."

Without command of the seas, we have seen the seas become a potentially hostile medium threatening our very shores in a few short years. Over half of our population lives within 150 miles of our coasts and today Soviet missile submarines patrol off these shores within striking distance. Their long-range patrol aircraft regularly fly down our coasts, and Soviet spy ships intermingle with our sport fishermen off Norfolk and San Diego.

Clear maritime superiority must be reacquired. We must be capable—and be seen as capable—of keeping our access secure to areas of our vital interest. This is not a debatable strategy. It is a national objective—a security imperative.

Maritime superiority does not mean that we must seek to be omnipresent on all oceans, nor act as the world's maritime policeman. It means only that in those areas of our vital interests that we can prevail if challenged by the combined military threat of our adversaries. Geography, which strongly favors the United States and its allies, sets the parameters of our task. Besides our geographic advantages, we are also blessed with the firm partnership of hisotry's great maritime powers, including the United Kingdom, France, and other NATO navies, as well as Japan and our Pacific allies. With the vital contribution of these friends and allies, and the capabilities of our Air Force and Army, the Navy and the Marine Corps have clear maritime superiority within reach.

WORLD OCEAN AREAS WHERE CONTROL IS VITAL



STRATEGY

The vital interests which make up the boundaries of our maritime task are relatively straightforward and not subject to serious debate. The naval services do not determine these vital interests. They are provided by the network of some 40 treaty commitments entered into by the United States Government and by the new realities of energy dependency. These commitments bind our fortunes to all of the world's great oceans—the North and South Atlantic, the Caribbean, the Norwegian and Barents Seas, the Mediterranean, the Indian Ocean and Persian Gulf, and the Southwest and Northwest Pacific. Two of our States, Alaska and Hawaii, are not contiguous to our shores. From which of these vital areas would anyone seriously suggest we withdraw? It must then be clearly recognized that withdrawal is the only alternative to a major naval force expansion. Today the gowth of the Soviet global navy has eliminated the option of planning for a regionally limited naval war with the Soviet Union.

Unlike land warfare, should deterrence break down and conflict begin between the navies of the United States and the Soviet Union, it will be instantaneously a global naval conflict. We must, therefore, recognize that the choice is to maintain security of the sealanes in each of these ocean areas, or write them off and suffer the consequences. It may be seen that these vital interests dictate a simple and coherent maritime strategy: to establish command of the seas in those areas where U.S. vital interests require. It means we must be able to prevent the cutting of the sea lines of communication to those vital areas. This can be carried out only by pos-

sessing sufficient offensive naval striking power to defeat and neutralize those combined forces postured to cut those lines and interfere with that access. We must plan to conduct these tasks with a large degree of simultaneity. We must have a forward strategy, a strategy which identifies and exploits Soviet weaknesses such as inherently unfavorable maritime geography. The geographic and allied advantages provided us dictate a strategy of initiative and maneuver. Our adversaries must know that if they initiate hostilities at sea, it is they who will be put on the defensive. This strategy requires a force equipped and trained for flexibility, mobility, simultaneity, and offensive combat.

Maritime strategy must preserve access to our allies and friends while providing and supporting a flexibile regional response, isolating Soviet continental power from the rest of the world, projecting allied power ashore, supporting a strong mobilized strategic reserve from the United States, and prevailing in either a short or a prolonged war. Strategy based on forward maritime defense is essential in drawing down enemy forces, keeping pressure on the enemy's interior lines of communication, preventing his concentration of forces, and buying time for the capabilities of the industrial democracies to mobilize and come into decisive play. It will also prevent Warsaw Pact concentration of forces in Central Europe by forcing them to defend and distribute their forces against maritime vulnerabilities around the entire periphery of Warsaw Pact territory.

Although our national security objectives are oriented toward defense, we cannot rely solely on tactically defensive capabilities which would permit a potential adversary to erode U.S. and Allied forces sequentially—on their time schedule. Our forces must be offensively capable and be seen as such by our adversaries. Our forces in one area must be capable of imposing restraints on Soviet activities elsewhere. Especially in the initial phases of any conflict initiated by our adversaries, allied naval forces cannot allow the Soviets to choose the time and place of each engagement. Using the inherent flexibility of our naval forces, we will fight on terms most advantageous to us, capitalizing on Soviet geographic disadvantage, and keeping the Soviets concerned with threats all around their periphery.

Such a strategy requires sustainability necessary to deal successfully with initial assaults, however intense and for however long, to prevent an adversary from succeeding while, at the same time, mobilizing fully our economic industrial potential.

STRATEGY SUMMARY

Reacquiring maritime superiority provides America the capability to carry out the forward strategy necessary to offset any disadvantages of the allied nations on land. It will thereby deter major war. Should deterrence fail, it will allow us to fight at whatever level of intensity is necessary and bring the conflict to a termination on terms favorable to the United States. Maritime superiority makes possible a strategy based on countering Soviet advantage in ways they will find most difficult to overcome. The U.S. maritime capabilities and tasks requisite to such a strategy are:

Maintain a survivable and capable sea-based nuclear strategic deterrent.

Keep open the sea lines of communication which permit the United States to maintain a credible forward deloyed posture on land areas abroad.

Operate offensively on a global basis, capitalizing on the geographic disadvantages of our adversaries.

Sustain a level of fighting in wartime sufficient to contain initial enemy actions, and then to gain advantage and ensure eventual U.S. victory.

Provide and support a flexible regional response to aggresssion.

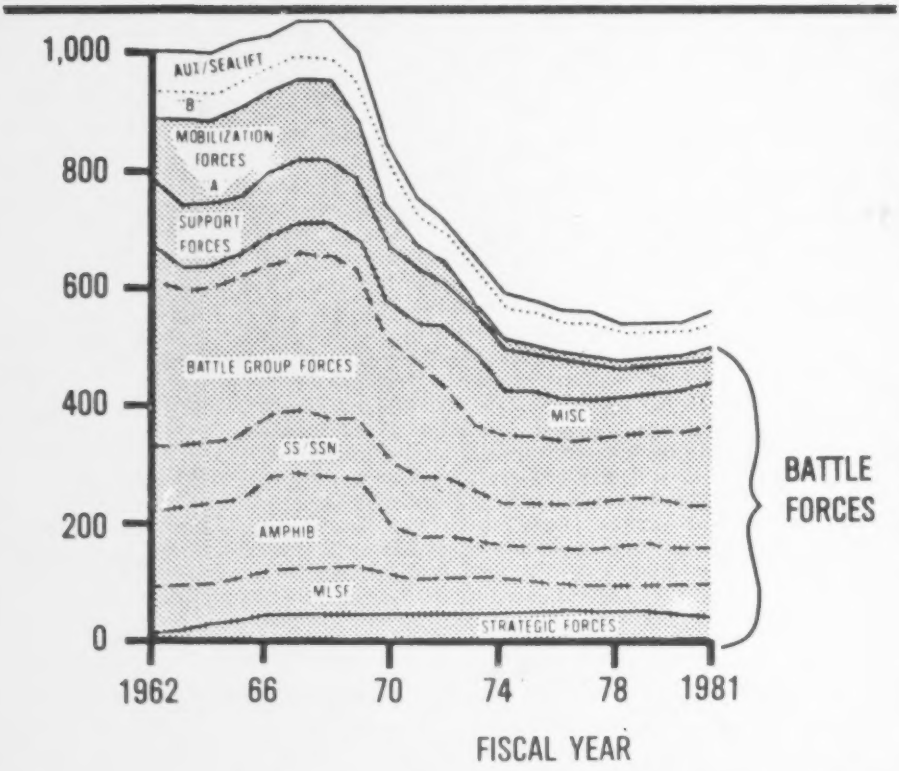
Retain strong residual forces for war-termiantion and dictation of peace.

FORCE LEVELS

Much public attention has been given to the Administration's objective of a 600-ship Navy based on 15 battlegroups. The force that those numbers symbolize is derived directly, and I might say austerely, from the minimum forces necessary to carry out the strategy outlined above.

The reductions in naval forces experienced in recent years were based on the assumption that the Soviet threat was too great, and that we could no longer carry out a forward strategy. It was a "pull back" strategy, based on the paradoxical notion the the more powerful the Soviet naval threat, the fewer forces we should allocate to meet it.

U.S. NAVY SHIP FORCE LEVELS



As a result of years of deferral, we have had to begin our naval recovery program from a reduced base. As in so many other areas of our defense posture, the Soviets had strong momentum in their building programs, and we had none. A year ago we had a base of 12 deployable aircraft carriers and 12 carrier air wings, with no replacement aircraft. We had a 469 ship fleet, including 78 attack submarines and 32 operational missile submarines. A year ago we outlined a force structure expansion of some 30 percent, building to 15 battlegroups and a force of about 100 attack submarines. The program required additional aircraft carriers, battleships, attack submarines, strategic submarines, amphibious assault ships, strategic sea-lift ships, fleet support ships, mine warfare ships and other support vessels in order to provide a balanced fleet.

SHIFTING NAVAL BALANCE

Fleet size little relative change.

Modernization: Soviets out investing U.S.

Momentum in shipbuilding: Marked in Soviet Case: 2 to 1 in major combatants; 5 to 1 in submarines; 29 to 1 other naval construction; and 75 percent new ships by 2000.

Evolving force characteristics: Soviet trend toward offensive, long-range ships: Carriers increasing; cruisers increasing; diesel submarines decreasing; minor combatants stable; Amphibs increasing; and oilers increasing.

U.S. range of capablities generally the same: Cruise missiles disperse offense.

Technical differences narrowing.

Such an ambitious ship, aircraft, and weapons expansion and modernization program involves a number of interesting force planning issues, some of which I would like to address:

SOPHISTICATED VERSUS SIMPLE WEAPONS

There is a continual balance that must be carefully fashioned in force planning between high technology weapons systems and lower cost simple weapons—the so-called high-low mix. We are well aware of the dangers of over-sophistication, gold-plating, and the truism that at some point quantity will generally overwhelm quality. The standard must be that weapons need be capable of carrying out their task in the face of the existing threat within prudent risk. Navy fighter aircraft must be able to deal, for instance, with the TU-22 in superior numbers, whether it is flown by Libyans or Soviets. The pace of technology has recently been set largely by the Soviets, who have been building ships and submarines with greater speed, range, fire power, and electronics capability than ever before. Their warships are among the very best in the world. Their cruise missile programs are the most numerous and capable in the world. Their electronic warfare capabilities are second to none. The Titanium *Alfa* submarine, the *Oscar* class submarine, and the largest submarine in the world, the *Typhoon,* each have some capabilities that are better than any in our inventory.

On the other hand, the laws of physics do not change. There are many weapons that can carry out the task as well now as they could 20 years ago, and we are capitalizing heavily upon existing assets and product-improvement of older technologies.

We are taking advantage, moreover, of American high-technology in simplifying and making more maintainable and reliable both our existing and new systems. Of significance to the simplification process is the rapid evolution of digital chip technology, permitting new orders of magnitude in improved reliability and lower maintenance. For example, we have invested heavily in applying the latest technology in the F-18 to achieve increased reliability. We are now achieving a maintenance to flight hour ratio over 4 times better than the aircraft it will replace. This will result in huge savings in the cost of manning and operating our forces in the future. While there will never be a simple answer to the dilemma between quality and quantity, and the high-low mix in force planning, I believe we are now striking the correct balance, given our limited resources.

NUMBER OF BATTLEGROUPS NEEDED TO SUPPORT NATIONAL STRATEGY

Because of the emergence of a global, blue-water Soviet maritime threat, the number of battlegroups necessary to avoid turning any of our vital maritime areas over to Soviet control is calculated on a number of factors: the advantages of geography that exist, the substantial contribution that U.S. Air Force and allied air forces can provide, the advantages mobile Army forces and allied navy and marine forces can provide, and the strike capability that only U.S. battlegroups can provide. The minimum number necessary to carry out a strategy that will result in the proper maintenance of all our vital interests is 15.

LARGE VERSUS SMALL AIRCRAFT CARRIERS

One of the oldest debates in post-war defense policy is aircraft carrier size. The Department of the Navy has studied, and continues to study, alternate aircraft carrier designs. It has provided Congress with detailed designs of alternative carriers ranging from 15,000 to 100,000 tons. Many of these designs, including some of the mid-range and smaller sizes, would be extremely valuable military assets. Nevertheless, we continue to conclude from all source evidence, including the study of new technology, that the *Nimitz*-class nuclear carrier remains far and away the most cost-effective option and the best way to meet the war-fighting needs of our deterrent posture for the future. The extensive data base the Navy has developed by operating carriers of all sizes simply yields no other conclusion.

The large size of the *Nimitz* permits the operation of an airwing with a four-dimensional capability. Action can be taken simultaneously against air, land, surface and sub-surface adversaries. It can operate the entire range of tactical aircraft, both conventional and VSTOL, with the flexibility to adapt to every potential military requirement in the world, and with the operating sustainability not just to be there but to stay there—and win.

The *Nimitz* design provides enormous additional operational safety and flexibility in high sea states and all-weather conditions by having a large and stable deck. Accident rates for smaller carriers currently in operation, and those in prior years, are much higher than for the *Nimitz* class.

The *Nimitz* class now has the passive protection systems that we have learned, through the experiences of World War II and through constant monitoring of latest

Soviet developments, are necessary to fight, take damage, and prevail. Some of the war-fighting features which will make CVN 71 and subsequent CVNs the least vulnerable ships in our fleet, include: High-tensile strength steel armoring of flight and lower decks; magazine protection from high and low angle attack missiles; multiple provisions for torpedo protection; over 2,000 water-tight and shock-resistant compartments; counter-flooding capability; necessary power and pumps for de-watering flooded compartments; protective fire-fighting and flooding systems for ordance and fuel storage spaces; extensive and redundant fire-fighting facilities throughout the ship; chemical, biological and radiation protection; unlimited range at top speed; and greater storage capability than conventionally powered ships which require massive volumes of space to store ship's fuel.

UTILIZING OLDER AND EXISTING ASSETS

We are a Navy and Marine Corps that grow stronger each year in this 5 year plan because we are making maximum use of investments paid for in prior budgets. The reactivation of the four *Iowa*-class battleships is a well-known example. For the price of a modern frigate, we will deploy an enormously powerful, technologically capable, and survivable ship. Some of our aircraft carriers now in commission are nearly my age and will remain in service long after I am gone from this office. We have support ships which have been in service for over 40 years, and we have studies underway which raise confidence that we may extend the life of many of our existing ships to 45 years.

With the exception of the F/A-18, all of our existing front-line aircraft are based on designs more than 10 years old—some more than 20 years old. We now emphasize planned product improvement based on proven designs much more than did naval aircraft development and procurement in past decades. Older designs that we intend to continue operating and developing into the future include A-4, A-6, KA6, EA6, A-7, AV8, F-4, F-14, H-46, H-3, HS-2, S-3, P-3, E-2 and EC-130.

BATTLESHIP REACTIVATION

Because of the special interest in congressional debates last year, there is a great deal of attention being paid to our battleship reactivation plan. The *New Jersey* (BB-62) is nearing the half-way point in its reactivation program. I have personally pledged to deliver that ship on time and at cost. It will join the fleet in less than a year. Congress has appropriated the initial money to reactivate the *Iowa* (BB-61). *Iowa* and two subsequent BB's will be modernized in private shipyards and will join the fleet a year apart beginning in Dec. 1984. Long-lead funding for the third reactivation is requested in the current 1983 budget, and we expect to request long-lead funding for the fourth the following year. All four of these ships will have the latest communications and electronic warefare suits. Armament will include the Harpoon anti-ship missile, Tomahawk anti-ship and land attack missiles, and the immense fire power of nine 16-inch guns with extremely accurate 2,700-pound 23-mile range projectiles, and twelve 5-inch guns, and the latest close-in-/air defense system. These ships will be as survivable and tough as the *Nimitz* class aircraft carriers. They will have the capability to steam unrefueled for 14,000 miles, providing the nucleus oof surface action battlegroups for the near term. Each BB will provide this enormous capability for about the cost of a new frigate.

FUTURE OF THE ATTACK SUBMARINE FORCE

The 688 *Los Angeles* class nuclear-powered fast attack submarine remains the most capable anti-submarine warfare, anti-surface warfare platform in the fleet. This platform is vital to countering the threat posed by the Soviets' unprecedented multi-mission nuclear submarine construction program. They now have about 220 attack submarines in service, approximately 60 nuclear powered, which include the *Charlie, Echo, November, Victor* and *Alfa* classes. Procurement of 17 of the *Los Angeles* class submarines in our 5-year program will allow us to achieve our nuclear attack submarine force level goal of 100 ships. While some Soviet submarines have individual characteristics that exceed those of the 688, the *Los Angeles* class has an all-around capability that is superior to any single Soviet submarine class. As in our other major platforms, we are planning evolutionary product improvement of this system. There are programmed upgrades in weapons and sensors, in survivability against attack, and in increasing capability to deploy with the full family of Tomahawk cruise missiles. The vertical launch system that will be incorporated in hull 719, and all thereafter, provides a marked increase in dispersed striking force and fire power against both sea and land targets.

SHIPBOARD INSTALLATION OF TOMAHAWK CRUISE MISSILES

The deployment of Tomahawk cruise missiles on surface ships and submarines is the fastest and least expensive way to deploy additional credible deterrence against the Soviet Union. I believe it is by far the most rapid and cost-effective way to distribute strike capability throughout our naval forces. The principal elements of this program, which are included in the 1983 and subsequent year budgets, are armored box launcher installations on surface ships, fire-control system modifications on the surface ships and submarines, and installation of vertical launch systems on both submarines and new construction surface ships. The current 5-year plan includes measures to deploy more than 100 ships with Tomahawk capability. Four submarines are being given Tomahawk capability this year. The battleship *New Jersey* will be the first surface ship to deploy with Tomahawk in early 1983.

THE FUTURE OF SEA-BASED AIR

The global mobility of sea-based air power and the great flexibility provided by large aircraft carriers will form the striking power base for sea control and projection ashore well into the next century. The four dimensional capability that a carrier airwing provides will continue to evolve in the future to stay abreast of the progress of new technologies. Air wings and aircraft types will continue to evolve as engine, aerodynamic, materiels, and electronics technologies advance.

In addition to the large carrier air wings, the Navy and Marine Corps will acquire the capability to disperse air power on smaller ships. We have proven the feasibility and utility of deploying Harriers operationally on LHA amphibious helicopter carriers and intend to continue this into the future. As an evolution of this concept, we have included in this plan, for full funding in 1984, a new version of the LHA which will enhance the amphibious assault capability of that proven class of sea control platform, and also make it convertible to a Harrier and anti-submarine helicopter carrier.

In the 1983 budget we are also strongly supporting a joint service development of a true VSTOL medium speed aircraft. We are optimistic that this program will produce an aircraft capable of accomplishing our future medium assault, and other sea-control support missions as well. It will be able to operate, not only from large carriers and smaller air capable amphibious ships, but also from cruises, destroyers, and support ships.

DIESEL ELECTRIC SUBMARINES

The diesel electric submarine continues to provide formidable capabilities in today's naval environment. It does not, however, fit the needs of United States naval force structure, it is not an optimum platform for U.S. submarine roles and missions, many involving long transit distances and high speed endurance. Maritime superiority, however, depends upon our allies' continung to contribute the highly capable diesel electric submarines they now provide, with NATO navies alone now contributing some 100 of these submarines to the allied force.

RAPID DEPLOYMENT FORCE—THE MARINE CORPS IS READY NOW

The role of the United States Marine Corps, as this nation's force-in-readiness, is more important today than it was 30 years ago at the time of amendment of the National Security Act of 1947. During that process, the need was highlighted for a small, highly mobile, efficient, combat-ready force, which could be deployed rapidly as this nation's "first response" capability. The three Marine divisions and wings mandated by that legislation, and organized into Marine air-ground task forces, are the basis for our current Marine Corps force structure. Today's national security requirements place even greater reliance on flexibile, ready, rapidly-employable forces capable of forcible entry. Our combined Navy-Marine Corps naval projection force is just that.

The three Marine amphibious forces have been identified as rapid deployment forces. A portion of these have been identified for use by the Rapid Deployment Joint Task Force (RDJTF) for use in Southwest Asia. The flexibility, readiness, and "strike force" character of the Marine Corps represents the epitome of the global operation of maneuver warfare.

AMPHIBIOUS EXERCISES—1981

During 1981 the Marine Corps maintained an extremely high level of OPTEMPO. Regular and reserve units exercised together, demonstrating the reality of the total

force concept. Over 140 exercises of varying size and scope were conducted worldwide. 54 of these were joint/combined exercises conducted with the other services and with 34 foreign nations. 68 were amphibious landings exercises ranging from small unit size to full Marine Amphibious Force Level. These were conducted in all environmental conditions including arctic, desert, and jungle, from Norway to the Persian Gulf, from the continental United States to the Western Pacific.

STRATEGIC REQUIREMENT FOR INDEPENDENTLY DEPLOYABLE MARINE AMPHIBIOUS CAPABILITIES IN MULTIPLE THEATERS

In a dramatic departure from the policies of the past, the Reagan Administration has adopted a firm objective as part of our naval rearmament program to achieve the capability to deploy one complete Marine Amphibious Force (MAF) in one theater and, independently, one Marine Amphibious Brigade (MAB) in another. As recently as 1968, the Navy, in fact, had sufficient amphibious lift to deploy two complete MAF's. Currently that capability has declined to about one MAF. An integral part of the program, including plans for LSD–41s, LHDs, LPD, LCACs, and other initiatives, will acquire the capability for one MAF, one MAB before the end of this decade.

Having the capability for the simultaneous deployment, in different theaters, of these two formidable forces will add enormously to the ability of our national leadership to carry out global strategy. These objectives are also shaped by the realization that that neither policy nor budgets are likely to permit future stationing of permanent land forces at sufficient overseas locations to meet all of our treaty commitments. Amphibious operations provide a substitute for secure ports in both unopposed and opposed situations. This capability provides tactical projection and dispersion of combat power from the sea into many vital areas. Amphibious capability also provides a precise application of force for evacuation of U.S. nationals, or crises protection of national interests, in a wide variety of scenarios. In the context of any strategy recognizing global American interests, amphibious forces continue to be regarded around the world as a unique strategic asset. This capability-in-being singularly imposes a tremendous strategic distraction to the Warsaw Pact. In classic terms, the numerically inferior amphibious forces require the adversary to either dissipate his resources in extensive defenses around a huge land mass, or concentrate those resources at counter-offensive marshalling points where he invites destruction though massive attacks. Independently deployable Marine amphibious capability assures that leverage.

NEW CAPABILITIES IN THE MARINE CORPS

Historically, the Marine Corps has been a pragmatic innovator and a leader in the introduction of new tactics and capabilities to expeditionary warfare. Product improvement and evolution, and maximum use of existing assets, have been a hallmark of Marine Corps success. The current Reagan program includes initiatives that will increase Marine Corps fire power by 25 percent. Anti-armor capabilities will be enhanced by increasing the inventory of current weapons, and by the introduction of the new 40 mm machine gun and the mobile protective gun system. The conversion to the Mark 198/155 mm Howitzer continues, and the wide dispersion of precision guided munitions has speeded up. Introduction of the AV8B advance HARRIER will greatly improve the responsiveness with which close air support can be provided to Marine ground combat units. The light armored and new multi-propose vehicles will greatly enhance tactical mobility, as will the CH–53E program and the upgrade of the CH–46 medium helicopter fleets.

The vital dimension of maneuver warfare will be widened significantly with the introduction of a long-range high-speed VSTOL replacement for the medium assault helicopter force. This is planned for the end of this decade.

RESEARCH AND DEVELOPMENT POLICY

A year ago I stated our objective of significantly shortening a development cycle which has been a source of significant cost-growth and ran approximately 12 years. I also said that we would "stop chasing rainbows," and would no longer engage in massive development programs where the payoff in capability and efficiency was marginal. Ten years ago, research and development funding for the Department of the Navy was approximately the same as it is today in constant dollars. Over that period, however, we had almost doubled the number of R&D programs. Thus, too few dollars were spread over too many programs. Over the past 12 months, we have cancelled a total of 40 such programs, and we will continue to achieve additional

R&D economies. The dollars saved are being redirected to the most promising development programs. In addition, we are determined to remain on the cutting edge of progress in basic research and technology. The health of our Navy laboratories and engineering centers has our highest priority in R&D. The Department of the Navy has some of the best such organizations in the entire world, and we are firmly committed to attracting and retaining the best and most creative talents to these organizations.

MODERNIZATION

Throughout my statement, I have discussed many aspects of modernization. I would like to highlight two specific areas that will require our continued high priority action. The first of these is AAW. The continued improvement by the Soviets in air-launched and submarine-launched cruise missiles necessitates our continued emphasis on over-the-horizon surveillance, the outer air battle area defense system, and point defense systems.

Similarly, the proliferation of new Soviet submarine classes, which exhibit important qualitative improvements, requires that we maintain our momentum to improve our ASW capability in order that we will always be able to assure control of the sea lanes.

READINESS AND SUSTAINABILITY

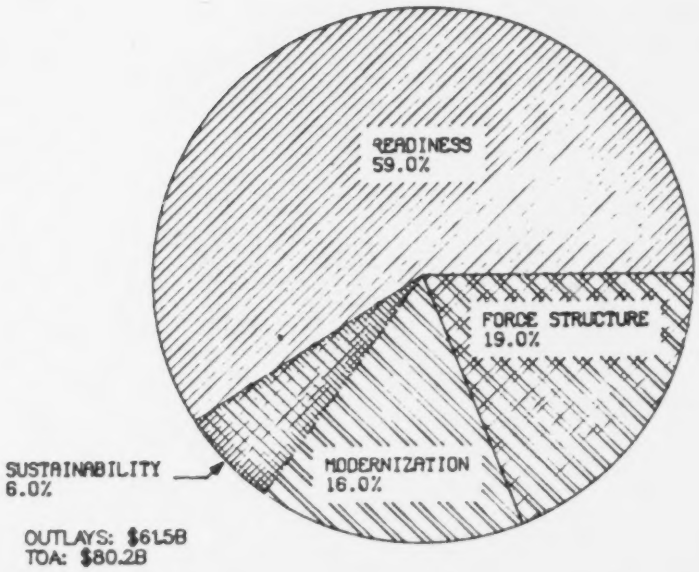
Concurrently with the great decline of our force structure in the past decade, there was an equally alarming decline in readiness and sustainability accounts. There has been a great deal of publicity regarding large shortages of ammunition, weapons, and maintenance spares. The Reagan supplemental to the 1981 Budget, and the Reagan revision of the fiscal year 1982 budgets, placed high priority upon rapidly recovering from accumulated deficits, and this turnaround has been dramatically achieved. The current budget continues to restore health to our readiness and sustainability accounts. In every category we see continued improvement building on the 1981 and 1982 appropriations. In some categories, particularly in the subtainability of higher technology, ammunition and weapons, we would like to see faster growth, but we believe the current program is balanced.

Here, again, we have experienced the very encouraging phenomenon we have found in the investment accounts; namely, that increased budgetary support from Congress has enabled us to make very dramatic savings in unit costs, and in the readiness and sustainability accounts. We are able to plan and buy at far more economic and business-like rates, and for this we believe Congresss deserves much credit. Your positive efforts have saved the taxpayers a great deal of money.

NAVAL STRATEGIC NUCLEAR FORCES

As result of the SALT II debates, the world is now familiar with the alarming state of the strategic balance. Since 1961, the Soviets have carried out an enormous strategic nuclear force expansion. They have used this margin to underwrite their adventurism throughout the world. During that same time, however, US capabilities have been allowed to erode and decline. President Reagan has reversed passive attitudes and has put forward a dramatic program to redress that imbalance, and to restore parity and stability so that the unthinkable horror of nuclear war can never provide a source of political blackmail by a superior adversary.

U.S. NAVY FY83
MILITARY CAPABILITY COSTS
PROJECTED FY83 OUTLAYS



The naval contribution to our strategic security plays a major part in the Reagan recovery program. The President has decided to accelerate the introduction of the Trident II missile to our submarine force, and the current budget reflects an 1989 IOC. The Secretary of Defense and the Department of the Navy are applying new innovative acquisition management principles to seek to achieve an earlier introduction than the 1989 date.

The 1983 budget includes funding for another of the President's initiatives, the deployment of Tomahawk cruise missiles in our attack submarine force. This will provide a further dimension of stability in our strategic deterrence.

The Navy will be increasing its secure stategic delivery capability throughout this decade. The *Ohio,* the first of the Trident submarines will make its first operational patrol later this year. There are 8 other Trident submarines under contract, and 6 more in the current five year program, with two in our fiscal year 1983 budget. Eventually, all of these ships will be equipped with the highly accurate, longer-range, greater payload D-5 missile.

A major element of the President's new strategic program has been the strengthening of the command and control of our strategic forces. The Navy places the highest priority upon this most vital contribution to peace-keeping. Our budget this year includes a number of extremely high-payoff programs gaining reliable, effective and survivable strategic command, control and communications.

Development of a new (ECX) aircraft is underway to provide greater range and capability for the TACAMO mission. The new aircraft will provide continuous survivable communications to our ballistic missile submarines. The extremely low frequency (ELF) system under development in the North Central United States will provide additional one-way communication links to the deployed submarine force, further reducing the submarines' vulnerability. We are also participating, with the Air Force, in the development of a satellite communications system which will take advantage of extremely high frequency (EHF) propagation. The system will reliably pass orders from command centers to the operating forces. As a consequence of these strategic improvements, the possibility of Soviet preemptive attack will be made more remote. By denying the Soviets any prospect for gaining any possible advantage by initiating the use of nuclear weapons, we will—with the programs in this budget—have strengthened the prospect for the preservation of world peace.

SEALIFT

Alfred Mahan has wisely written that "A nation's maritime commerce strength in peacetime is the most telling indication of its overall endurance during war." The steady decline of our U.S. flag merchant fleet, which is the backbone of our logistic support, causes the Department of the Navy great concern. Over the last decade, the number of U.S. Flag Dry Cargo operators has declined substantially. In 1970, there were 83 U.S. Flag Dry Cargo operators. Now there are only 28. Instead of 527 dry cargo ships, today there are only 251. U.S. merchant ship construction contract awards have declined from 47 in 1972 to only 9 in 1980.

By the middle of this year, as many as 30 cargo ships may be in excess of industry needs. Most of these ships, even though not new, could be utilized in our ready reserve force (RRF) or the National Defense Reserve Fleet (NDRF). We are now considering ways and means to provide funds to acquire these ships.

During the past year, Navy RRF ship requirements have increased. Our eventual goal is an RRF of 77 ships, including 16 tankers. All will be in an advanced state of readiness.

To provide for a strategic sealift of mechanized equipment to support an Army division, the Navy initiated the TAKRX program in fiscal year 1981 through the purchase of 6 Sea-Land SL-7 container ships, with an option to procure the 2 remaining ships in fiscal year 1982. These high-speed, extremely capable ships will, upon conversion to a roll on—roll off (ro-ro) configuration, provide for lift of a heavy mechanized Army division from US ports to remote locations. During fiscal year 1982, the Navy will exercise the option for the remaining 2 ships and anticipates commencing the ro-ro conversion of 4 of these ships while providing for interim limited use of the remaining 4 through the use enhancement features. In fiscal year 1983, conversion of the remaining 4 ships will commence.

During the past year we have upgraded the Near-Term Pre-positioned Force (NTPF) in the Indian Ocean to a total strength of 13 ships, including tankers, ro-ro, barge carriers (LASH), and break-bulk ships. Additionally, tow tugboats are attached to the force. Currently a convert and charter program is underway to provide the necessary TAKX ships to accommodate supplies and equipmemt for 3 Marine Amphibious Brigades. This will result in the first group of ships being tendered for charter in fiscal year 1984. The required ships for all 3 brigades will be available and under charter by fiscal year 1986. The convert and charter concept is an innovative method for acquiring the necessary capability at a cost less than outright acquisition, and in far less time.

Sea-based medical facilities have been high on the Navy's priorities during the past year. We are now embarked on a solid program to convert, and acquire or charter, hospital ships (TAHX) to support deployed forces. Solicitation for a design phase for these critical ships has been initiated, and we expect to award a contract for the conversion and outfitting of the first hospital ships in fiscal year 1983 and a second ship in fiscal year 1984. The first ship should be available in fiscal year 1986.

MANPOWER AND PERSONNEL

The dramatic turn-around of the recruiting and retention of skilled personnel in the Navy and Marine Corps is one of the most successful developments of the last 12 months. Set in motion by the determined and innovative personnel initiatives

begun here in this committee in 1980, this success has been built on the actions by this Congress and by the Reagan Administration, who have followed through on their commitment to bring pay and compensation back to the comparability levels of 1973. This has now been accomplished, and the results have exceeded our predictions for manning our expanding Navy. In addition to the monetary changes, there is no doubt that the renewed dignity accorded the military by Congress, the Administration, and the American public, as well as the ambitious and confident rearming of America that President Reagan has begun, have all significantly contributed to the excellent recruiting and retention news of the last 12 months.

ENLISTED RECRUITING

In fiscal year 1981 the Navy exceeded its total enlisted accession goal recruiting 106,322 personnel. For 26 straight months, we have made over 100% of quota, and the quality has been steadily increasing. The Marine Corps has exceded its annual recruiting goal for both fiscal year 1980 and fiscal year 1981. High school graduate accessions remain above 80 percent.

Moreover, we have enlisted more Marines than in any peacetime year in History.

OFFICER RECRUITING

Naval and Marine Corps officer recruiting efforts in fiscal year 1981 have resulted in a larger number of officer accessions than in any year since the all-volunteer force began.

RETENTION OF SKILLED PERSONNEL

Perhaps the most dramatic turn around in the past year has been our success in holding on to the tremendous investment that the taxpayers have made in our highly trained career personnel. Just two years ago, overall retention of career and enlisted personnel had dropped to one of its lowest levels in history, 44 percent. For the past 12 months, we have been able to retain these invaluable people at a rate of over 65 percent. Since it takes nearly $100,000 of taxpayers' money to train a skilled rating, and it requires 6 enlistees on the average to bring one to the full 20 year mark, the savings to the American taxpayer are already enormous.

Another exciting indication of the new spirit of accomplishment in the Navy is the fact that we have been bringing back into the Navy highly skilled and trained prior service personnel at a rate of over 1,000 a month.

NUCLEAR OFFICER RETENTION

With high civilian salaries to attract nuclear trained officers, this community has suffered from chronic shortages, resulting in long and repeated tours at sea. The combination of Officer Sea Pay, increased Sub Pay, and increased Nuclear Bonus rates have reduced resignations by over 23 percent during the past year. This attention has also caused a number of former nuclear trained officers to return to active duty. We have therefore been able to reduce the amount of time an officer can expect to spend at sea from 15 to 14 of his first 20 years, and we are confident we will be able to achieve the eventual goal of 11 years at sea.

AVIATION OFFICER RETENTION

The most dramatic example of the great savings to the taxpayer that the pay raise initiatives of the last year have induced is to be found in aviation retention. With a total expenditure of only $33.9 million in fiscal year 1981, and $55.6 million planned in fiscal year 1982, we have been able to reverse the extremely low rates of retention for pilots and naval flight officers. Because it takes $850,000 to train a naval pilot, and $650,000 to train a naval flight officer, the ability to hold experienced aviators during the most useful periods of their experience and careers is obviously very cost effective. In fact, because of the bonus, we have retained over 500 pilots and 125 NFOs that were expected to leave the Navy and Marine Corps. A conservative estimate would establish that this has saved the taxpayers approximately 450 million dollars in training costs during the past 12 months alone. As a result of this positive retention trend, we can likewise expect substantial savings in the development and procurement of a new training aircraft because we now have unexpectedly achieved our goal in naval flight officer numbers, and we are able to recommend reprogramming money previously planned on maintaining a much higher level of NFO training. Additionally, the retention of skilled and experienced

aviators provides an immediate and lasting increase in fleet readiness and combat capability, and a lowered accident rate.

SEA PAY

The clearest indicator of the impact and benefit of the increase in sea pay is the increase of requests to stay on sea duty. Compared to only a few the year before, there were over 2,800 naval members requesting sea duty last year.

NAVY AND MARINE CORPS RESERVES

With Navy and Marine Corps expansion, an additional burden of importance comes to the Navy and Marine Corps Reserve. In the all-volunteer environment, a much greater weight is placed upon the immediate mobilization capability that the Ready Reserve and Selected Reserve provide. The current budget, therefore, proposes an orderly expansion of the Navy and Marine Corps Reserves and most important of all, a substantial modernization in equipment.

As part of the 600-ship Navy, we are introducing new frigates into the Reserve, both FF-1052 *Knox* class frigates and even newer FFG-7 *Perry* class frigates. The current program envisions a Naval Reserve force which will include at least 24 frigates, as well as update and modern mine warfare and support craft.

In this budget, the Naval Air Reserve begins a new chapter in its history. We will begin a shift this year from a vertical integration of our aircraft—the practice of putting older aircraft models in the Reserves as we phase newer ones into the fleet—toward horizontal integration of the Naval Air Reserve into the total force. We shall establish reserve squadrons for virtually all of our front line fleet aircraft, beginning with the first active F/A-18 wing, which will have a reserve squadron attached to it. Thus we will have Selected Reserve units qualified and equipped to augment fleet units immediately in all of our front line aircraft.

The end strength of the Selected Marine Corps Reserve has been increased by approprimately 3,000 individuals since 1980, a growth of about 10%

The Navy and Marine Corps Reserve will be more fully integrated in the total force than ever before. Achievement of naval superiority cannot be carried out without Reserves capable and enthusiastic in picking up their share of the burden.

THE MANAGEMENT OF OUR NAVAL EXPANSION

Our planned naval force expansion requires bringing all of our development and procurement programs under strict management control to eliminate every vestige of waste, fraud and abuse. Our management activities over the last 12 months have focused on effective stewardship of the resources provided the Navy, and on getting new contract designs in place so that American workers can get rapidly on with the process of rebuilding the Navy.

In order to safeguard the taxpayers' dollars and ensure that private contractors accept an equitable share of the risk, much firmer contracting policies are being stressed. These include:

Using appropriate type and structure of contract forms.

Defining requirements so that industry can assume its fair share of the risk under a fixed-price or a fixed-price incentive environment.

Structuring share lines and incentive-type contracts, on more mature development or production-type programs, so that risks and rewards are directly related to performance and cost savings.

Encouraging a 50 percent government, 50 percent contractor share-line, both above and below target cost, on fixed-price incentive cost-sharing arrangements in mature programs, so that the contractor has the incentive to come in ahead of schedule and under cost to realize a 50 percent share of savings achieved. On the other hand, poor performance will result in immediate cost burdens being assumed by the contractor himself.

Closing contract loopholes that have historically provided a major source of claims disputes.

Monitoring more closely performance by navy contract management personnel. This has included more delegated authority and responsiblity at the project manager level, with commensurate reward for good performance and penalty for not meeting goals.

Establishing a more disciplined approach toward meeting the government side of delivery commitments for government furnished equipment in major and minor procurement programs.

Establishment of a firm Navy policy to initiate claims for direct and consequent damages against contractors failing to live up to contracts.

These goals have been implemented and achieved in some of our most important major programs, including the 688 submarines with both Newport News Shipbuilding and Drydock Company, and the Electric Boat Division of General Dynamics, the Trident submarine program at General Dynamics, Electric Boat Division, and the F/A-18 aircraft with McDonnell Douglas. During the course of the coming year, more contractors will feel the impact of this new contract approach. They will accept more of the cost-growth risk which has too often been carried by the taxpayers. It is important to note that while pursuing these goals, we have been able to resolve major conflicts with General Dynamics, Newport News Shipbuilding and Drydock Company, and McDonnell Douglas on terms favorable to the taxpayer.

In addition, a major accomplishment has been made in the incentive revision of the contract for CVN-71, the aircraft carrier *Teddy Roosevelt*, in which Newport News will work to deliver this ship 14 months earlier than previously contracted at a potential program savings to the taxpayer of about $ 100 million. Additionally, the total package of accelerated delivery of CVN-71 plus the procurement of CVN-72 and 73 in a single budget year, taken together, offer potential savings of almost one billion dollars over the life of the contract.

Competition has always been the primary incentive for better products at lower cost. The Navy is using all of the proven methods of enhancing competition, such as competitive development, dual sourcing, and component breakout. Examples of programs where competition has been exploited by the Navy during the past year are the ASPJ onboard jammer program and production of sonobuoy and air-to-air missiles. During fiscal year 1982, we expect to complete a competitive selection for the second source for the CG-47 *Aegis* cruiser. The Navy is using competition judiciously, especially in research and development, where we are selecting our sources with considerable weight on technical competence and past performance, in carrying out the management initiatives instituted by Secretary of Defense Weinberger and Depty Secretary of Defense Carlucci. Additionally, the navy has undertaken to improve dramatically our competitive posture for those contractor support services which are not inherent government functions.

The Navy is working to take advantage of the cost savings which result from multi-year procurements. Although requiring great discipline and minimum design and quantity changes, multi-year contracting offers, and will continue to offer, significant dollar savings to the Navy as opposed to annual contracting methods. We expect to be able to demonstrate to Congress a total multi-year savings on current programs initiating in fiscal year 1982/fiscal year 1983 of over one billion dollars.

The internal management of the Navy is also a matter which must recieve attention to achieve more efficiency. Our program this year includes expanded productivity enhancement funding, and other initiatives designed to improve organizational effectiveness. In order to increase reliance on the private sector, we plan to send more complex ships to the private sector for overhaul, and I have decided not to initiate production of submarines in a Navy yard. We decided to reactivate and modernize *Iowa* in the private sector and currently plan to perform the reactivation of *Missouri* and *Wisconsin* in the private sector as well.

An important improvement in our management personnel environment was brought about by Congress in the raising of the executive pay ceiling this past year. The magnitude of this raise, however, offers only temporary relief and, if we are to maintain the calibre of people necessary to carry out the scale of responsibility involved in our Navy development and procurement, we cannot indefinitely pay them non-competitive salaries. A long-term solution of this problem is urgently required.

SYSTEM ACQUISITION POLICY

In April of last year, Mr. Carlucci, the Deputy Secretary of Defense, approved a set of initiatives which have made a significant impact on system acquisition in the Department of the Navy. The central thrust of the policy changes was to implement controlled decentralization. As Secretary of the Navy, I have revised our acquistion policy: By reducing documentation requirements, easing the number of milestone points requiring formal review; and focusing on a system acquisition strategy which provides a program structure that balances performance, readiness and cost. Program reviews are now conducted to assess the soundness of the system performance and business plan. In particular, the business assessment emphasizes the utilization of competition, contract incentives to achieve lower unit costs, more economic production rates, and improved cost estimates. Our acquisition strategy is now being tailored to the needs of the development process and includes the use of pre-planned

product improvement (P^3I), minimum concurrency, and thresholds which avoid requirement-creep. The transition to a production phase is being carefully structured to avoid a gap between engineering development and production, and to assure early production line maturity and higher-quality hardware at the onset of production. In order to provide the programs more flexibility, I have established a management reserve within selected ship, aircraft, and weapon procurement, and for selected RDT&E programs. These reserves are based on program risk assessments. Finally, since the key to effective systems acquisition is the quality and experience of the program managers, I plan to place greater emphasis on the selection procedures and training of program managers.

CONCLUSION

A great deal has been accomplished in just 12 months. We have, with this third budget of the Reagan Administration, marked a dramatic new course to build on the accomplishments of the last 12 months. We have demonstrated to the critics that maritime superiority can provide the tools for this nation to reestablish the stability necessary for peace with justice. We have demonstrated that the critics were wrong when they said that such a program cannot be accomplished, that we could not manage such an undertaking, and that the industry of the United States, and our Navy and Marine Corps people, do not have the capability to respond to such an ambitious challenge. We are recruiting and retaining sufficient people to grow at the pace outlined by our President and to increase quality at the same time, and to do so without a peacetime draft. Our principal contractors have demonstrated that they will respond to the challenge and will accept the increased risk and responsibility necessary to carry out these programs on cost and ahead of schedule.

There is much cause of optimism in the progress of the past year, and we are confident that this progress solidifies the confidence that Congress and the American people have placed in us and in the importance of reestablishing the keystone of our national security as a maritime nation—maritime superiority. We are confident that those voices who call for abruptly upsetting this recovery by cutting the program that we have put forward will not carry the day. As the man for whom we have just named our latest aircraft carrier, President Theodore Roosevelt said, "If we seek merely swollen, slothful ease, and ignoble peace, if we shrink from the hard contests where men must win at the hazard of their lives and at the risk of all they hold dear, then bolder and stronger peoples will pass us by, and will win for themselves the domination of the world."

Chairman TOWER. Thank you, Mr. Secretary. Admiral Hayward?

STATEMENT OF ADM. THOMAS B. HAYWARD, U.S. NAVY, CHIEF OF NAVAL OPERATIONS

Admiral HAYWARD. Thank you, Mr. Chairman and gentlemen. I am always pleased to come before you and report on the posture of the U.S. Navy and support the budget that has been submitted, especially this year.

I would like to begin and end my summary remarks by stressing the positive atmosphere that exists in the Navy today, the momentum that we have, which is all in the right direction and is very constructive to our objectives. This is the result of a number of factors, but certainly foremost has been the support of the Congress, and the support from this committee that the Navy has received over the last 3 years, and most particularly in last year's pay and compensation issues, and also the support for a strong and growing Navy.

I would also like to stress at the outset that the military leaders in all the services and the military leaders in the Navy have a very accurate assessment and are mindful of the economic trauma that is going on in the country today. We appreciate that there are strenuous demands for our Nation's resources and that many of those demands are very valid; but we would suggest that they are not equally valid.

We appreciate also that there is a very direct relationship between a strong economy and a strong defense.

On the other hand, I would like to highlight the fact that the military leadership is acutely aware of how unstable the world is. I would suggest that the decade of the eighties is going to be a decade of tremendous uncertainty. In my professional judgment it is a high-risk period. The opportunity for the outbreak of conflict, either small or large, is very high, and the price of war vastly exceeds the price of trying to maintain the peace.

The security of the free world is directly linked to the strength of the free world and it is relying heavily upon the strength of the United States. A vital element of the security and strength of the United States is maritime superiority.

Secretary Weinberger in his annual statement to you made it clear that it is the policy of this administration to restore the maritime superiority of this country. I don't know how one can improve upon the explanation of our maritime superiority which you have just received from Secretary Lehman and the naval strategy which we believe is critical to our overall national strategy.

As a service chief I find it extremely encouraging that there is such a clear understanding and support for maritime superiority, and the regaining of it, such a confluence of agreement on matters that the Navy has found itself alone in for so many years. We now find ourselves pulling together.

One has to also be greatly encouraged by the Sense of Congress amendment that was passed with the 1982 appropriations bill. I would like to read two sentences from it simply as a way of illustrating why it is encouraging for a naval chief to hear. The two sentences are these: "A larger and stronger Navy is needed as an essential element of our Armed Forces." The other sentence is: "In order to conduct the numerous and growing missions of a modern American Navy, a goal of approximately 600 active ships is highly desirable."

I believe that the budget that has been submitted by the Reagan administration responds affirmatively and directly to this sense of Congress direction.

POSTURE OF NAVY

Now I would like to make a few observations with respect to the posture of our Navy today and the future potential of the Navy as it will be influenced by the 1983 budget. I think in describing the posture of the Navy today it might best be done by circumnavigating the globe as we look at the Navy as it moved from 1981 to 1982. Where is it? What was it doing?

We find that in January 1982 there were three carrier battle groups operating in the Mediterranean, conducting a major joint unified exercise with our NATO allies including the U.S. Army and Air Force.

Our naval forces were involved in this large excercise. It is the first time we have had three battle groups in the Mediterranean since 1976. There will be four battle groups in the Mediterranean sometime this summer. A year ago there was only one. Today there is only one. We have gone from the three in January back to one.

As of now the U.S.S. *Eisenhower* group is present in the Mediterranean. The U.S.S. *Nimitz* has returned home following its 6-month deployment and the U.S.S. *Kennedy* has moved through the Suez Canal into the Indian Ocean. In January there was one battle group in the Indian Ocean. Now there are two. Two battle groups will remain there for a few weeks. When I testifed last year, there were two and there has been two continuously for almost 2 years.

At the turn of the year we had a marine amphibious group operating in the Indian Ocean where they operate the majority of the time and 13 maritime pre-positioned ships, soon to be 14. This is a major change from the posture of a year ago when we had just initiated that new program. There are now 13 ships able to maintain Army, Air Force as well as Marine Corps combat requirements, supported entirely by the U.S. Navy.

In January we had the U.S.S. *Coral Sea* battle group in the South China Sea as a counterforce to the continuously growing presence of the Soviet Union operating its surface ships, submarines and airplanes out of Camranh Bay and its associated airfield.

Today there is no U.S. Navy battle group in the South China Sea. The *Coral Sea* has moved north to operate in support of our commitment to Korean and Japanese requirements.

At the turn of the year the U.S.S. *Midway* was back in its home port of Yokosuka, but fresh with memories of having been unexpectedly called to the Tsushima Straits along with Air Force augmentation units and the Army and Marine Corps, in response to the largest mobilization exercise conducted by the North Koreans since the establishment of that government.

At the turn of the year we also found the U.S. naval forces in the Carribbean in the largest numbers that we have seen in many, many years, as we have changed our policy of training off the east coast of the United States and moved that center into the Caribbean for obvious political and military reasons.

We found the sea-based leg of the strategic triad at sea totally invulnerable, 100 percent ready to go, the most reliable aspect of our strategic force today.

That was the posture of the Navy as we went from 1981 to 1982 and it leads to some conclusions: First, that we continue to rely upon naval forces as a principal element of our national policy; second, that our commitments in peacetime continue to grow, they do not decline, and we do not predict that they will decline, and third, that our maritime balance with respect to the Soviet Union has not changed from last year to this.

My assessment remains that we have lost our margin of naval superiority. This is not to suggest that the Soviets are ahead, but it is to suggest that we have allowed our own posture to decline steadily for a decade and now the balance remains uncertain.

Both sides still have strengths. Both still have weaknesses. Both sides' capabilities are improving every year. Our capability this year is definitely better than it was a year ago. So is the Soviet's. In fact, that has been the principal issue. Over the past decade the Soviet's capability was increasing remarkably year by year and ours was not. This accounts for the position that your naval professionals take that our margin of superiority is of major concern to us. It also accounts for our insistence that the budget that has been

submitted is required. The momentum that has been initiated must remain. That is why we believe we should be building toward the 600-ship Navy as fast as we can.

NAVY'S FUTURE

To talk briefly about the future, I would like to remind the committee of some of the points I have made in previous testimony with respect to the trends of our investment.

Looking back to the last 2 or 3 years, the budgets submitted then established two data points, 1980 and 1981, that gave a clear signal that the trend relative to the Soviets was toward certain maritime inferiority.

Last year when the 1982 budget was prepared it established the third data point in the same direction. Had that budget been submitted as the one for the Congress to act upon I would have been placed in a totally untenable position of not being able to support it. Significant events occurred however and the 1982 budget was adjusted upward to allow us to maintain our readiness and meet the commitments that were asked of us.

The 1982 budget was increased substantially by the administration and we now have a 1983 budget before you that is no longer just rhetoric as to what this administration intends to do, but in fact has reversed the decline of the U.S. Navy we are moving ahead and we now have to insure that we continue that momentum.

In that sense there should be no question as to why the Navy is as optimistic as it is today. We have a great deal of confidence as to where we are headed and we know that the requirement is valid and is understood. The Sense of Congress amendment certainly provides support for that optimism on our part.

The 1983 budget we have submitted to you is prioritized. It accentuates readiness and combat sustainability as the first priority. I would reinforce what the Secretary has said, that we must maintain readiness and sustainability in all categories, spare parts, munitions, and training as our first priority.

The guidance I have given to my staff over the last 3 years has been a singular one, that being whatever size Navy the American people and the Congress decide we can have, it must be a first-class Navy, ready to go. We have put billions of dollars in the last 3 years into readiness and we are seeing the effect of that investment. There are billions more in the 1983 budget and they must be supported and continued.

Whatever, the ultimate size the Navy is to be is the responsibility of the Congress of the United States. We professionals will obviously attempt to influence that, but it must be a ready and able Navy in every sense.

I will not discuss any of the details in the budget. I will leave those to be read or questions to be asked. However, I would like to make some observations about the dominant procurement issue which you have mentioned, Mr. Chairman, the two CVN's that we ask be funded.

CVN'S

I will leave the discussion as to why two CVN's in 1 year to the Secretary of the Navy because the reasons are based upon business judgments which I believe are very valid. I support the logic of buying two in 1 year for the savings that it provides and also for the fact that we get those two ships many, many months in advance of any other procurement scheme. Those ships mean capability and, therefore, I obviously want to see the two CNV's remain in the 1983 budget.

My comments will be directed toward the requirement for CVN's. Why big decks? Why these costly ships? Without going into those details now, which I know the Secretary and I will be glad to, I want to put the entire focus on the real issue. The real issue surrounding the budget request for two CVN's is the air power at sea, air superiority at sea, an issue that seldom gets addressed. In discussing aircraft carriers we get off on the tangential issues of vulnerability and detectability, which are important, but the key issue is air control at sea.

When you think of an aircraft carrier you should only be thinking of it in terms of an airfield. You are buying a mobile airfield, a platform from which to operate weapon systems, airplanes and their weapons for the purpose of maintaining air superiority and to project offensive capability. We want airpower at sea in order to have air superiority at sea because there has not been a battle since World War I that has been won by the side which did not control the air.

AIR POWER AT SEA

We want airpower at sea for offensive capability. It represents the principal offensive strength of the U.S. Navy today. We want it in a carrier because that airfield is mobile and gives us the flexibility and the opportunity to utilize the strategy of mobility, the maneuver strategy that is so popular today and which is absolutely inherent in our forces. The Navy has always been maneuverable and maneuver warfare has been an underlying feature of our naval strategy.

It is our air control today that places at considerable risk the high investment the Soviets have made in their surface Navy. One has to question whether they have done the right thing, however when one watches what they are doing. They are trying to emulate us by creating their own airpower at sea.

I would like to stress that that air control, that airpower, and air superiority does not have to come only from sea-based forces. Airpower clearly can be supported and originate from land bases and perhaps someday from space. The point is, in our professional judgment, there is no way in which it can only come from land bases or only come from space. Our national strategy requires us to have mobile airfields from which we can maintain air superiority and air control.

Every objective analysis that I have looked at over the last 15 years with respect to aircraft carrier size and shape, power, source, and the like, has concluded that force levels in the neighborhood of 15 or 16 carriers, are required and that the most effective thing we

can do is to build the biggest and best carrier we can build. That is what the *Nimitz* class carrier represents for us today and that is why the Secretary and I are absolutely convinced of the correctness of our judgment that if we are going to regain superiority, if we are going to maintain air superiority, we need to build these kinds of ships.

So I would like to close, Mr. Chairman, by reemphasizing, as I began, the positive aspects of the Navy today. You have a quality Navy. It is a good force. The investments of the past have been wise investments. The judgments have been well made and we are continuing good judgment with our budget before you.

It is a sound budget and it is a sound plan. The military people are proud today. Your Navy people are proud today. When the President said in his state of the Union message before the Congress that the uniform of our country is being worn with pride again, he was absolutely right.

Military people are confident today because of the leadership of the country, because of the support of the Congress, and their conviction that we are in fact going to reestablish the Leaderships of this Nation and we are going to reestablish naval superiority for our Navy.

Retention is the highest we can recall since we have been keeping statistics. Desertion is down by over 30 percent from what it was 3 years ago and continues to fall. Attitudes are up, morale is high. The Navy is on the move. We have a full head of steam.

There is no reason why we should not be able to maintain the momentum if the Congress and the people will stay with the plan that has been laid out. This is a good budget before you, it will build the right kind of Navy.

[The prepared statement of Adm. Thomas B. Hayward follows:]

PREPARED STATEMENT BY ADM. THOMAS B. HAYWARD, U.S. NAVY, CHIEF OF NAVAL OPERATIONS

POSTURE OF THE UNITED STATES NAVY

Mr. Chairman, I am pleased as always to have the opportunity to present to this committee my assessment of the posture of the United States Navy today and to testify in support of this year's defense budget which is, in my judgment, particularly critical to the interests of the United States as leader of the free world.

This is a time in which it is clear to all that there are strongly competitive demands for our Federal Government's limited resources. In the context of burgeoning defense budgets, this suggests that the conflicting pressures to meet domestic needs, however well justified and acknowledged, must be addressed with full awareness that we live in a period when, if there is any clear signal for the decade ahead, it is that the risk of conflict is high and increasing. As one assesses the dramatic growth in our principal adversary's military strength, overlaid on his aggressive and adventuristic foreign policy, it should be equally clear that the security interests of the free world have seldom, if ever, been more demanding.

The price of war has always been high. The consequences of war have never seemed more dire. Hence, our resolve to maintain the peace must not be allowed to be diluted by competition from other national priorities, however valid they may be. The high cost of war always has and always will outstrip the financial burden of maintaining the peace. Therefore, our responsibility today is to maintain our security posture so strong that no nation, however desperate, will choose to test our capabilities. Yet, failing to preserve the peace, we must have adequate strength to assure an outcome that preserves our independence and freedom. Naval superiority is a vital adjunct to these objectives.

Secretary Weinberger has made it abundantly clear in his annual report to the Congress that it is the policy of this administration to restore and maintain mari-

time superiority of the United States. It is a strategic truism that possessing maritime superiority is fundamental to the achievement of the national military objectives of this island nation. If challenged, we must be able to prevail in those areas of our vital interest. To accomplish this objective will take time—several years to make up for the decade or more of inadequate investment in our naval strength.

In reporting to you on our naval posture, I believe it is useful to review just what our Navy is doing as we turned the page of this new year. In this way you will gain a clear picture of where we are and what must be done to get where we know we must go. For instance:

January of 1982 saw three carrier battlegroups simultaneously in the Sixth Fleet—a unique convocation of naval strength which has been absent in the Mediterranean for many years. Today, only the USS *Eisenhower* battlegroup remains, as the *Nimitz* and her combatants return to the United States following a six month forward deployment and the *Kennedy* has proceeded on to the Indian Ocean. The significance of this concentration of force should not be underestimated, for it demonstrates clearly the enormous flexibility inherent in naval forces, which permits us to aggregate power in a given ocean area at the time and place of our choosing, while also highlighting the fact that for the last year and a half, the residual strength of the U.S. Sixth Fleet has generally been represented by but one carrier battlegroup and an amphibious force.

January 1982 found the U.S. Navy with but one carrier battlegroup in the Indian Ocean, compared with the two which were present when I testified before you a year ago, a force which we had maintained for almost two years. In some sense, the fact that this reduction in U.S. naval presence went so unremarked illustrates the relative ease with which Western Nations have accommodated to the Soviet incursion into Afghanistan and the now stalemated war between Iran and Iraq. As of this moment, with the USS *Kennedy* and her battlegroup having transited the Suez Canal, the Indian Ocean Naval Force is once again at two battlegroups for a period of time, reemphasizing the facility with which our naval presence can be adjusted, up or down, as well as the important role which the Suez Canal plays in these options.

January 1982 also found in the Indian Ocean a marine amphibious unit from the Seventh Fleet, continuing the commitment of amphibious force presence well over half the time in that theater, further demonstrating the mobility and flexibility of our naval forces.

January 1982 witnessed the significant enhancement of the afloat pre-positioning concept at Diego Garcia, presently comprised of 13 ships, with supplies aboard sufficient to support the 11,000-man 7th Marine Amphibious Brigade and early arriving Army and Air Force units.

January 1982 saw the USS *Coral Sea* and her battlegroup on station in the South China Sea, reinforcing our long term commitment to stability in that region. *Coral Sea* functioned as a force to off-set the gradually growing Soviet naval presence, now routinely operating from land and sea bases at Camranh Bay. The *Coral Sea* was also less than a week's steaming from the Indian Ocean, as well as 96 hours from her commitment in support of our interests off Korea and Japan.

January 1982 found the USS *Midway* back in her home port at Yokosuka, Japan, undergoing scheduled maintenance—but fresh with memories of having to respond unexpectedly to the largest mobilization exercise yet to be conducted by the North Koreans.

January 1982 found the Joint Chiefs of Staff examining anew the numerous options considered feasible in support of our continued interest in Central America and the Caribbean—options which must inevitably involve heavy reliance upon the employment of naval forces, both Navy and Marine.

And finally, January 1982 found the ballistic missile submarine force silently on alert, carrying out its strategic responsibilities, completely invulnerable to destruction by Soviet systems. Seven of these SSBN's have now been converted to the Trident I missile, which give us added operational flexibility and targeting options.

What conclusions can we draw from this worldwide survey of naval commitments and operations? I suggest that:

First, not surprisingly, our nation continues to rely heavily upon the use of naval forces as an instrument of national policy, employing those forces as they were designed to be use in a flexible, mobile, effective manner.

Second, our commitments continue to grow—well beyond our traditional interests in NATO and the Far East—commitments that now require us to confront the reckless initiatives of Colonel Qadhafi, as in the Gulf of Sidra this past year; commitments that require us to present increasingly a counterweight to Castro's expanding support of Central American and Caribbean insurgents, as well as his continued ap-

petite for opportunism in Africa; and commitments that demand we address realistically our long-term vital interests in the Indian Ocean.

And third, even as we remain at peace there will be no let up in the tempo of operations for naval forces. Furthermore, we are reminded that our principal interests must look well beyond these peacetime requirements to meeting the primary mission of the Navy, that of being able to conduct prompt, effective wartime operations.

Thus, the characterizations of our Navy which I used with you for the last three years still pertain:

We are a Navy stretched thin around the globe.

We are a one-and-a-half ocean navy trying hard to meet three ocean commitments—and those commitments are inexorably growing.

And, our narrow margin of superiority has vanished—for any reasonable estimate of the naval balance between ourselves and the Soviets falls well within the range of uncertainty.

Nevertheless, there are two clearly discernible trends which should provide us confidence and optimism, and they are that:

We are a Navy on the move. We have momentum, and it is in the right direction.

And, we have an administration that is determined to build toward maritime superiority in this decade, which is captured by the phrase, a "600-ship Navy."

Whereas three years ago we reached a low of 468 ships, today we have more than 490, with 76 more under construction. The *Spruance* and *Kidd* class destroyers have joined the fleet; the *Perry* class frigate increases our combatant numbers rapidly; we continue to receive new, impressive *Los Angeles* class submarines; another nuclear carrier; the first of the Trident submarines and new support ships—all have become part of the Active Forces. Furthermore, there is a major change in the Sealift portion of our Navy which does not show up in these figures but which enhances our overall military flexibility in new and exciting ways.

It is against this backdrop, then, that I would like to proceed with a further evaluation of the posture of our Navy in the context in which that posture should be evaluated.

NEED FOR MARITIME SUPERIORITY

The Secretary of the Navy has described lucidly the naval strategy we are pursuing today. Likewise, he has described several key elements that constitute the essence of maritime superiority. I endorse unequivocally his views. If I have any concern with his discussion, it is not in the substance, but in the very fact that there remains a need to enter into such a discourse at all—to explain again and again why this country needs a superior naval force. Yet, I acknowledge that it must be done.

Can there be any doubt that without naval superiority our national military strategy has questionable viability? Is it truly necessary that we reiterate over and over that the very health of our national economy depends upon overseas resources? Must we be reminded repeatedly that the two great oceans of the world wash up on the shores of this "Island Nation"?

One of the most encouraging things that I can recall in the past three years as Chief of Naval Operations has been the "Sense of Congress Amendment" in section 782 of the 1982 Defense Appropriations Act in which you recently made clear the congressional position that:

"(1) A larger and stronger American Navy is needed as an essential ingredient of our Armed Forces, in order to fulfill its basic missions of

"A. Protecting the sealanes to preserve the safety of the free world's commerce

"B. Assuring continued access to raw materials essential to the well-being of the free world

"C. Enhancing our capability to project effective American forces into regions of the world where the vital interests of the United States must be protected

"D. Engaging the Navy of the Soviet Union or any of the other potential adversaries successfully

"E. Continuing to serve as a visible leg of our Strategic Triad and

"F. Providing visible evidence of American diplomatic, economic, and military commitments throughout the world."

It is clear that the Congress of the United States wants, expects, and, moreover, demands that this Nation have naval forces superior to any adversary who might challenge us—clear maritime superiority when our Allies are considered in the balance. Section 782 went on to say that "In order to conduct the numerous and growing missions of the modern American Navy, a goal of naval inventory of approxi-

mately 600 active ships of various types by the end of the century at the latest, is highly desirable . . ." thus, the issue before this body now is not the need for maritime superiority, nor the size and capability of our Navy, but how best we can get from here to there.

The Department of the Navy's budget submission before you totals $88B in obligational authority—$76.3B for the Navy and $11.8B for the Marine Corps. The Department of the Navy's budget is a significant sum to say the least, and represents a substantial growth from last year. No one appreciates more clearly than I that this investment must be made wisely if we are to attain the progress we all desire toward restoring our naval superiority. The creation of the Congressional Military Reform Caucus is a manifestation of the deep interest of the Congress in the investment of such large sums and how that investment should be prioritized across a variety of weapons systems and requirements.

I would like to assure this committee that we welcome indeed the intense interest of the Congress in the future posture of the United States Navy, and I consider it incumbent upon ourselves to address our requirements and our recommended solutions with clarity, objectivity, and conviction, sharing with you our finest professional judgment.

To help us understand what kind of Navy we believe we need to regain maritime superiority, one needs to understand clearly (1) the national maritime strategy, (2) the uniqueness of naval warfare as contrasted with land campaigns, and (3) the key principles which underlie our force structure judgments. Secretary Lehman has already given you an excellent overview of maritime strategy and maritime warfare. I would like, then, to review with you briefly these two other factors.

UNIQUENESS OF NAVAL WARFARE

In the first place, one of the obvious factors that differentiates the strategy and tactics of warfare at sea from those of land campaigns is related to the additional dimension in battle space with which maritime forces must contend; that is, we must account for the enormous volume under the sea as well as the area of its surface and the space above the surface.

Second, battle lines at sea do not recognize the same kinds of boundaries that we are accustomed to on land. There are no real "fronts" or "forward edges of the battle area." Geographic sectors are not controlled in the same way as on land, and rear areas tend to be more penetrable, hence, less secure. One by-product of this characteristic of sea warfare is that there is no obvious geographic indicator by which friend and foe alike can immediately comprehend how the war is tending. On land the battle lines serve as a current measure of success. There is no direct analogue at sea.

Third, while the threat to our land and air forces focuses most intensely at their forward defense positions overseas and declines with distance from the periphery of the Soviet Union, the situation is more challenging for our naval forces. The treat to our forces—in these times most starkly illustrated by ship, air, and submarine launched cruise missiles—unquestionably grows more dense as they approach the Soviet homeland; but it already exists in some measure at all places around the globe—a fact which would be of particular significance at the outset of war. I am convinced that regardless of how or where a war with the Soviet Union might erupt, our Navy will have a global fight on its hands from the early moments of hostility.

Fourth, the fact that naval forces are mobile means that all naval warfare involves the element of maneuver. There are no set-piece battles at sea. The mobility of warships and the multi-dimensional battle space inherent in naval engagements make maneuver an unavoidable fact of life rather than merely an option for commanders. While adding complexity to naval warfare, the necessity to integrate the maneuver element confers great latitude for imagination and innovation, and history has been kind to the naval leaders who possessed these qualities.

Fifth, most of the countries of the world traffic through areas of potential maritime engagements, whereas only the belligerents ordinarily have access to land battlefields. Accordingly, naval warfare must routinely contend with the presence of non-belligerents. While land warfare does include the problem of civilian non-combatants, the complications at sea are of a different order. For example, ships of other sovereign states may be near a battle area and they may be attacked by a belligerent, by accident, or by design. Conversely, a non-belligerent might deliberately make an anonymous attack on a belligerent (particularly by submarine, which has the inherent advantage of anonymity) in order to steal attrition on a potential enemy at low risk or to provoke an attack on another country.

Sixth, naval forces frequently interact in peacetime directly with the forces of potential adversaries. The perceived balance of naval forces often forms the basis for establishing peacetime dominance in many geographic areas. This factor gives each adversary some notion of the tactics, readiness, and level of training of the other side. Given the often close physical proximity of war-ready Soviet naval forces, rules of engagement present unique and complex situations for the Navy, considerably more so than for the other services. This necessitates, of course, that the U.S. Navy develop, practice, and retain tactics that assure we are never surprised, yet provide us the option to initiate action when it is in our vital interest.

Seventh, naval forces have relatively shorter logistic tails. They arrive ready to fight and can sustain combat without resupply for a relatively long period of time. This is especially true of the amphibious component of United States naval forces. Designed, equipped, and trained to be inserted ashore in the face of strong enemy opposition, they can move on short notice and perform their initial tasks with little or no dependence on cumbersome logistic appendages.

Finally, the problem of surveillance on the broad oceans is more difficult by an order of magnitude than in the land environment. Not only do the vast expanses of the surface of the world's ocean provide more numerous locales for combat than on land, but the added undersea dimension introduces surveillance difficulties of a type that rarely exist on land. Due to the physical properties of the ocean, we have been able to improve our capabilities for undersea detection in small steps only and there is today no promise of substantial improvement in this area. In addition, naval forces must be prepared for attack from any azimuth, rather than from the opposite side of well defined battle lines. This requirement markedly escalates the need for broad area surveillance that is precise and durable.

KEY CHARACTERISTICS

In addition to the uniqueness of naval warfare in contrast to that on land, one needs to appreciate also the principal characteristics which we seek to build into our Navy—a navy that is substantially outnumbered in most types of ships and weapon systems, a fact of life that will unquestionably remain for the rest of this century. While recognizing the important contribution of allied navies in many critical scenarios, the following highlights key principles which influence considerably our force structure judgments and investment strategy.

Control of the air remains an immutable imperative of successful naval operations. Critically, it is our continued ability to control the air that guarantees the Soviets they are forever exposed to being placed at an extreme disadvantage. Hence, there remains the continued essentiality of sea-based tactical air power, as represented by our carrier battle groups.

Flexibility of naval forces is the sine qua non to establishing maritime superiority. Since our force levels do not provide us the opportunity to carry out a naval strategy that permits us to dominate vital sea areas simultaneously, flexibility is critical to our being able to move from one vital ocean area to another with whatever naval force deemed required for the circumstance presented, and in choosing the time and place of the next encounter.

Effective distribution of offensive power is a further principle underlying our force posture objectives. The greater the degree of distribution, the more we enhance our striking ability, complicate the enemy's defensive problems and dilute the effectiveness of his offensive forces. Hence, our emphasis on the battleship reactivation, which has the potential of becoming the most effective offensive surface combatant in any navy today excluding our carriers. Likewise our program to install vertical launch Tomahawk in the *Los Angeles* class submarine, as well as to give virtually every surface combatant its own cruise missile capability, will assure proliferation of our offensive options. The long-range cruise missile represents probably the next great breakthrough in naval warfare, both for striking other ships at sea as well as vital naval targets ashore.

The force multiplier principle is a critical element in our investment strategy, on that helps assure us that we can operate successfully in a highly sophisticated and complicated warfare environment. Hence, we must dominate electronic warfare, develop survivable surveillance systems, coordinate and integrate information through the employment of effective and survivable command and control systems, and frustrate and mislead the enemy through the most perplexing countermeasures.

The robustness of ship and weapons systems design is important if we are going to operate in hostile environments and survive, remaining functional in the face of battle damage. The characteristic of robustness demands redundant sturdy systems and components. They do not come cheap—which might help explain why the U.S.

Navy is so often perceived to have a penchant for larger ships with their concomitant higher costs. We must be able to go in harms way—and return the victor.

Lastly, we seek to optimize the employment of smart weapons, capitalizing on new technologies available and striving to maintain a technological edge over any potential adversary. Hence, more and more of our design effort goes into the employment of smart weapons with high degrees of accuracy and kill probability in preference to investing heavily in platforms that go faster, higher, and farther.

With this overview of the naval strategy and an understanding of some of the unique aspects of war at sea that lead to key characteristics we seek in our forces, I would like now to discuss some specific aspects of the 1983 budget submission before you.

THE FISCAL YEAR 1983 BUDGET

A guiding principle that has dominated the planning of the Navy during my tenure as Chief of Naval Operations has been: "Whatever size our Navy is destined to be, our job is to insure that it is the very best navy it can be." In other words, the decision as to whether we will have 10, 12, 15, or more battlegroups rests largely with the American public and the Congress—not with the uniformed leaders. The naval leadership can only tell you what you ought to have to minimize the risk. Whatever the decision might be on your part as to how large a navy the country can afford, we must have a first-class navy—a navy that is ready—a navy that is properly equipped—a navy that can sustain itself in combat—a navy that is manned by trained and competent people. Thus, the Navy's 1983 budget has been formulated in such a way as to prioritize the investment choices among the four elements of readiness, sustainability, modernization and force structure. Before examining each of these we should not overlook the highest priority Navy program today—the Navy's contribution to the strategic Triad.

STRATEGIC PROGRAMS

A sea-launched ballistic submarine continues to be the most survivable element of our strategic nuclear deterrent, and is predicted to remain so for the indefinite future. This fact will become more and more important in the days ahead, in my judgment, as we proceed with arms reduction negotiations, for whatever the outcome of "START," this country will come to rely increasingly on the naval component of the strategic Triad.

The fiscal year 1983 budget applies roughly 8 percent of the Navy's resources to strategic warfare. This percentage will increase over the next five years as we add a number of Trident submarines, currently programmed at six more, and provide for their modernization with the development of the Trident II, D–5 missile. The D–5 will provide the opportunity to improve not only range or payload, but most importantly the accuracy previously available only in land-based ICBM systems. Our strategic program also makes significant strides in the strategic command, control and communications network.

There are few requirements more important than the ability to communicate continuously with our SSBN's before, during and after a nuclear strike. President Reagan's strategic program calls for a number of improvements to the communications network to provide this assurance. Among the naval investments are nine new ECX aircraft in the five-year plan which will replace the aging EC–130 TACAMO. Additionally, the extremely low frequency (ELF) system now under development at the Wisconsin test site will provide low data rate communication links to SSBN's that will further reduce their vulnerability to detection while on patrol.

The first ship of the *Ohio* class SSBN has now joined the fleet and has met significant milestones in preparation for its first deterrent patrol later this year. As you know, *Ohio* demonstrated launch of the Trident I missile this January with complete success. Though we have had more difficulties in the construction and delivery of *Ohio* than anyone could forecast, the Navy is very satisfied with the end product. *Ohio* is an outstanding submarine that is surpassing its designed specifications in almost every way.

Backfit of the Trident I missile on our Poseidon submarines continues. At the present time seven Poseidon SSBN's have been so refitted; five more are to be accomplished in fiscal year 1983 for a total program objective of twelve.

I strongly support the President's strategic program decisions. In my judgment, they will allow is to capitalize on the inherent strengths of the sea-based leg of the Triad, while continuing to work on land-based options that will be essential elements of our strategic posture if we are to attain the desired level of deterence as well as warfighting capability. Ultimately, success in "START" is of critical impor-

tance to the United States, and, in fact, the entire world. I am satisfied that the balance between expenditures for strategic systems has not overly impacted that of general purpose conventional forces, though one should not be ignorant of the fact that a certain erosion to general purpose force investment has taken place.

READINESS

Nothing is more relevant to the ability of our naval forces to carry out their assigned mission in peace or war than their state of readiness, in all of its ramifications. Readiness is measured customarily in terms of personnel, training, supplies on hand, and the actual material condition of a unit. Readiness is affected by spare parts, component repairs, ship overhauls and repair, supply response, backlog of work to be accomplished, number of aircraft engine bare firewalls, tempo of operations, and so forth. The bottom line is that fleet readiness has been on the upswing of the past several years and has reached a point of considerable satisfaction. Talk to the average chief petty officer today and he will say that he has seldom seen the fleet look and perform better. On the other hand, he is quick to point out that the improvement has only been recent and that there is still plenty of room for more progress.

Without question the most detrimental effect on near-term readiness is generated by (1) the intensity of peacetime forward deployment operations demanded year-in, year-out of the fleet, and (2) by the degree to which ample manpower is available, properly trained, in the appropriate rate structure. I have already spoken about the detrimental effect of thinly stretching our Navy around the globe, and I will have more to say concerning personnel readiness. Suffice it to say that until we have a larger fleet able to meet our commitments more flexibly, and until we have greater depth of experience in our senior petty officers, fleet readiness will always be a matter of major concern and will call out for high priority of our investment dollars.

SUSTAINABILITY

Emphasis on war reserve stocks, mobility assets and mobilization capability has increaased significantly in recent years as the national strategy has transitioned from a "short war" concept to an awareness that we must be able to outlast any adversary, regardless of the duration of combat. As a consequence, the Navy plans to increase stock levels of munition, spares and secondary end items to provide a major increase in our war reserve. Over the next five years, we plan enough procurement to enable us to reach these objectives in most war reserve categories by the end fiscal year 1989. But, this is not fast enough, and we must do better; you may be certain that in the development of our fiscal year 1984 program we will once again address this issue.

Strategic mobility capabilities have received particular attention since fiscal year 1980 as we have grappled with the unique logistic problems associated with Indian Ocean operations. The ability to move and support forces in a distant theater of operations depends on a combination of airlift, sealift, and pre-positioning assets. While airlift offers tremendous advantages in terms of time of arrival, only a small fraction of our lift requirements can go by air. Sealift, while it entails longer transit times, provides throughout unmatched and unmatchable by airlift. All of which says we must have both, but in proper balance. Emphasis in prior years has not been balanced. While our total capacity, embodied in a rather complex combination of sealift programs, is sufficient to move the total tonnage requirements, severe problems exist in meeting the time phasing associated with any realistic reinforcement. Pre-positioning of equipment in forward areas is a partial solution to the timing problem. More modern sealift is another. Both avenues need to be pursued aggressively.

The near term pre-positioning ship (NTPS) program has been expanded to thirteen ships carrying 30 days of sustainability for a marine amphibious brigade (MAB). Over the next five years, we plan to replace the NTPS program with an expanded maritime pre-positioning ship (MPS) program that will result in the prepositioning at sea of 30 days of combat supplies for three mabs. Originally we planned to acquire 12 TAKXS for this purpose through a combination of new construction and conversion, but as you know, we are now pursuing a convert-and-charter alternative that will allow us to stick to our schedule for full inplementation of the MPS concept while reducing costs in the near years.

The concept of readiness and sustainability is meaningless without adequate consideration of the Reserve Forces, in their entirety—surface, air, shore support, staff, construction battalions, medical, intelligence, communications, and all other relevant elements. Within the past four years we have made impressive improvements

to the readines of the naval reserve, thanks in no small measure to the stability of the Reserve program finally achieved through the persistent efforts of the Congress. Our Selective Reserve end-strength is now past 87,000 and will grow by several thousand each year in the future as long as we are able to recruit the right skill mix while retaining a higher percentage of experienced reservists. The Naval Surface Reserve program received a great shot in the arm this past January as we commissioned the first two *Knox* 1052 class frigates (both relatively new) as part of our long-term program to bring at least 24 new or nearly new ASW frigates into the reserve. Our plans are to program a number of the first *Perry* FFG–7 class constructed to the surface reserve, capitalizing on the LAMPS I configuration of those ships. The first LAMPS I Reserve Squadron will transition in 1984, or sooner, with the ultimate objective of achieving two full squadrons on each coast. Reserve Shore Intermediate Maintenance Activities (SIMA) have already been initiated and several are in full operating condition at present, doing a superb job in support of both active and reserve ships. Secretary Lehman and I are both carefully reviewing the Naval Air Reserve program with the full intention of modernizing the tactical air squadrons as early as possible with the introduction of the F/A–18 as well as the A–6E. Additionally we are most hopeful that the request for proposal (RFP) which has been sent recently to industry will help us identify a number of used C–9 Skytrains to augment the 13 C–9s already in the Naval Reserve transportation squadrons. The oporutunity to meet, once and for all, the transport squadron requirements through contracting for used C–9's has never seemed more attractive or logical. They are desperately needed, as the C–118 squadrons have reached the end of their useful life.

MODERNIZATION

Navy modernization takes a two-track approach to ensure, insofar as possible, that our primary wartime mission of prompt sustained action would indeed be effective and result in winning either the skirmish or major battle. Modernization first pursues enhancement of current force capability by improvements to existing ships, submarines, aircraft, and sensors. Second, modernization promotes research in promising areas of advanced technology in order that we might capitalize upon our remaining technical advantages.

Specific objectives of the Navy's modernization program include near-term improvements in surveillance and targeting, improvement in and wider distribution of offensive striking power, particularly in standoff weaponry, and expanding an increasingly robust command, control, and communication system. One result of these efforts is to increase fleet battle space, giving our various weapon systems greater opportunity to engage the enemy in circumstances favorable to us—thus enhancing warfighting effectiveness.

In support of these modernization objectives, we are aggressively pursuing widest possible distribution of cruise missiles on surface ships and submarines. This innovation is particularly interesting in that it combines new techniques with old ones, evolutionary rather than revolutionary developments, to yield novel warfare options. Initial operating capability for the anti-ship Tomahawk and conventional land attack versions is scheduled for this fiscal year in the submarine force and fiscal year 1983 in surface ships. In addition, over the next five years we will begin backfitting cruise missile capable vertical launch systems in 31 existing SSN–688 class submarines and 24 DD–963 class destroyers, and installing them in our new DDG–51 class destroyers.

Introduction of the nuclear land attack Tomahawk missile in fiscal year 1984 will significantly improve our tactical nuclear capability and augment our stategic reserves.

Encouraging progress has been made in development of the Tactical Flag Command Center (TFCC). Continued effort in this program will result in dedicated centers afloat where officers in tactial command can make tactical decisions based on real time ocean surveillance and targeting information, and direct employment of forces as necessary to place enemy targets at risk.

With the addition of the SQR–19 tactical towed array sonar (TACTAS) to the *Perry* class FFG–7s and *Spruance* class destroyers, we gain a powerful ASW battle group capability against the most modern Soviet submarines. TACTAS extends our undersea "battle space" threefold over earlier systems, enabling the LAMPS III helicopters to engage enemy submarines at and beyond the edge of our largest battle force disposition.

The AEGIS/SM–2 weapons system will join the fleet with the commissioning of *Ticonderoga* in January 1983. The *Aegis* ship, with its superb proven phased array

radar offers the battle group a dependable counter to the enemy's ever-increasing capability to coordinate high density air attacks. The SM-2 missile with significantly improved kinematic capability enables us to enlarge further the battle space above the carrrier battle group, enhancing force survivability in the highest threat areas.

You will find a VSTOL program budget once again, as we seek to examine new options for providing TACAIR at sea later in this decade. In all candor, I am most disappointed with the constraining action of the Congress over the past five years, which has seriously inhibited our ability to delve into the potential offered by vertical lift aircraft. On the one hand the Navy is heavily criticized for not having sufficient vision to realize the potential of distributing its TACAIR assets on platforms other than carriers. Yet on the other hand, the Congress has made it impossible to proceed with any alacrity in search of such potential. The major reduction in our fiscal year 1982 request for VSTOL technology illustrates the point. I urge your full support for our fiscal year 1983 VSTOL program which will permit us to proceed logically with the medium-speed range lift fan for such missions as ASW, AEW, tanker and carrrier on board delivery (COD), while we also intend to proceed in a joint program of further research in the low disc loading regime for such missions as assault left, which could also compete for ASW, AEW and COD. For missions requiring higher speeds, we seek to investigate augmented deflected engine nozzle technology (ADEN) using an A-6 airframe.

Reactivation of the remaining three *Iowa* class battleships is planned over the next three years. I know some of you have had reservations about these ships, but let me assure you that these are excellent weapon systems, which we will deliver to the fleet on time and at cost. The cruise-missile-armed battleship will serve as the centerpiece of the surface action group, acting as a tactical unit by itself or in support of carrier battle groups.

In our modernization programs we also look beyond hardware improvements to development of new fleet doctrine and tactics. Through Naval warfare simulation played on a network of interactive computers, battle group commanders can rapidly test new fleet maneuver tactics against opponents. We are also pursuing a number of initiatives to ensure that we achieve maximum effectiveness from systems introduced in the fleet. High priority in this regard is being given to improving weapon system availability by factoring reliability, maintainability, and supportability considerations into the design phase of system development. We have been successful in identifying these requirements early on in the development of a number of programs in our current budget, including the F/A-18, air-cushioned landing craft (LCAC), and MK-46 Neartip torpedo.

We have changed our R&D management approach to account for our constrained modernization resources. As a result, we will be spending those dollars more efficiently. Over the last year, we have conducted an intensive review of our entire R&D program with the objective of identifying low-priority, ill-defined and underfunded programs as candidates for termination. This approach to taking necessary cuts will allow us to avoid the instability, delay and inefficiency that arise from taking less painful, incremental, "horizontal" cuts across the entire R&D program. Since January of last year, we have terminated or restructured more than 40 R&D and acquistion programs which should result in cost savings over the period of 1981-1987 of several billions. As a result of these actions, we intend to fund high-priority projects fully and shorten the time from inception to deployment of advanced systems.

There are risks in this approach, however. During the R&D phases of almost any project, there are uncertainties both as to the ultimate success of the program and as to its affordability. Thus we make changes from year to year as these factors become clearer. In some programs a degree of concurrency may be necessary to ensure that the capability sought is available when it is required. Further, while I fully support the use of lower risk technology and the concept of preplanned product improvement to speed up the process of fielding new capabilities, we must not be overly cautious in advancing the technological frontier. The Soviets have been fielding weapons of increasing sophistication at a rate much faster than we have over the past twenty years. Their R&D expenditures exceeded ours by some $90 billion from 1970-1980. They are closing the gap in areas of basic technology in which the United States has traditionally held the lead, and it is certain that they are devoting a greater effort to developments in certain unconventional technologies. The Soviet Alfa submarine, representing significant advances is titanium fabricating technology which has not been matched in the West, should give pause to anyone who claims that we retain unequaled qualitative superiority in weapons systems. All these factors increase the risk to us of future technological surprise.

FORCE STRUCTURE

One of the most encouraging developments in the fiscal year 1983 budget and five year plan is the major turn-around in the shipbuilding and aircraft procurement programs, which contrast sharply with those submitted in the past several years. We are proposing new construction of 133 ships over the next five years. Of these, 60 will be major combatants. A ship construction program of this size carried to its conclusion will assure the sustained growth of the fleet beyond the 556 ship limit of previous plans.

This budget and five year shipbuilding plan contains many changes from the plan of last year. It adds nine SSN-688's; accelerates CVN deliveries; adds two DD-963's; continues with FFG-7's; advances the LHD to fiscal year 1984; accelerates the MCM and adds a new MSH program; adds five TAO's; adds six other auxiliaries; introduces the SWATH hull from for AGOS; and adds two TAH hopital ships—an impressive array to say the least.

Our five year aircraft plan is more than 75 percent larger than the one submitted last January, providing procurement for roughly 1,900 aircraft. For the first time as CNO, I am able to report to you that our five year plan provides procurement of more aircraft than we expect to lose through attrition or retirement. Procurement at these levels is needed if we are to provide for the continued modernizing of existing air wings, and to "stand up" a thirteeenth wing in fiscal year 1983 and a fourteenth by fiscal year 1987. In my judgment, the future of naval aviation is bright and we should continue to dominate the air for the remainder of the decade and beyond. While not a part of the navy's budget, we are highly supportive of the additional purchase of AWACS for its unique contribution in maritime theaters. The presence of AWACS and F-15's in Iceland, Turkey, Southwest Asia, Korea and Japan will pay enormous dividends in constraining Soviet actions while enhancing ours.

The details of our ship and aircraft plans are appended to this statement in tabular form. The strength of these plans lies not just in the number of platforms to be procured, but more importantly in the broad qualitative improvements they provide to our total warfighting capabilities.

It is difficult to say which of our shipbuilding programs deserves the highest priority; they are all so critical to building a balanced growing fleet.

Unquestionably though, construction of the CG-47 *Aegis* class cruiser must proceed at an accelerated rate, for it provides a critically needed battle group capability against current and projected Soviet anti-ship cruise missiles, while adding to the battlegroup offensive power with the Tomahawk cruise missile. The *Aegis* cruisers are exceptionally capable and impressive. CG-47, the *Ticonderoga*, is already 85 percent complete, while the Aegis weapon system has proven itself ready for service. Seventeen of these high quality ships are included in the five-year plan, with more undoubtedly necessary as we approach fifteen carrier battle groups.

The design of the new class destroyer DDG-51 (DDGX) continues, and we will begin construction in fiscal year 1985. This ship is conceived to act synergistically with the CG-47 *Aegis* cruisers at less cost than the CG-47, but with considerably more open-ocean capability than the *Spruance* class destroyers which are lacking meaningful area air defense systems.

Our five year plan includes construction of two large deck nuclear powered aircraft carriers. Clearly, the fact that we are seeking authorization for two carriers in one fiscal year, a major alteration to the budgeting strategy from last year, will be a matter of special interest to the Congress. In our seeking this authorization, it is important that the Congress appreciate that this has not been brought about by any change to our understanding of the naval requirement, but rather as the result of the application of a new business strategy—multi-year procurement. By contracting for two CVN's in tandem, we are aiming for major production efficiencies and hope to shorten the normal seven-year production time by about two years. I will leave it to Secretary Lehman to discuss the business aspects of this request, but from the standpoint of naval warfare, let me assure you these carriers are vital. In my professional judgment, fifteen carrier battle groups are essential if we are to say again with confidence that we have attained a position of maritime superiority. The carrier battle group continues to epitomize those key characteristics which I discussed earlier—assured domination of the air, added fleet flexibility, robustness to combat damage, pure offensive power, and the potential of optimizing the employment of "smart" weapons.

One of the most threatening aspects of the Soviet naval force is the size and quality of their submarine force. Although we maintain technological superiority in antisubmarine warfare, increased emphasis is warranted to ensure continued effec-

tiveness against the expected advances in Soviet submarines and submarine-launched weapons.

Attack submarines remain a vital anti-submarine platform, as well as a major contributor to anti-surface warfare. Procurement of 17 *Los Angeles* class nuclear submarines over the five years of the program will bring us closer to our mid-range goal of 100 SSN's.

The highly successful *Oliver Hazard Perry* class FFG–7 program will be continued with procurement of twelve more ships over the five year period. Introduction of these 12 into the active force will allow us to transfer other *Perry* class frigates to the Naval Reserve, accelerating our efforts to modernize the reserve ASW capability, a major role to be assigned frigates in the event of war. Large numbers are needed, and the proposed building profile will bring us closer to the objective of 100–110 frigates.

Ocean surveillance ships (AGOS) add flexibility to our broad ocean area surveillance. Procurement of six of these ships is provided for in the program. We are considering a small water-plane area twin hull (SWATH) design, which would enable them to remain at sea on patrol in even very high sea states.

The LAMPS III helicopter will enchance group capabilities to prosecute submarine targets outside the enemy's weapons envelope. More than 200 of these helicopters are in the aircraft procurement plan, supporting our efforts to distribute airborne ASW capabilities as widely as possible.

The principal advantage of the U.S. Navy over all potential adversaries remains our ability to dominate the air. Much emphasis has been placed on preserving and enhancing our superiority in this area. Fighter and attack aircraft force levels will be expanded as a result of our procurement plans. This year's plan represents nearly a three-fold increase over what we were able to achieve from fiscal year 1977 through 1981. Navy and Marine Corps squadrons will be modernized with the introduction of the F/A–18 hornet in large numbers. Increasd procurement of the Marine Corps AV–8B is funded.

Marine Corps amphibious assault is unique—it is the only U.S. capability to insert significant numbers of heavy land forces ashore in a hostile environment. Adequate, survivable amphibious lift is essential.

Faced with the potential for block obsolescence of our amphibious force in the 1990's, we have pursued two separate ship construction programs in this year's plan. Construction of eight LSD–41's and introduction of the LHD–1 (LHDX) will allow us to begin replacement of aging ships with modern vessels that can better accommodate the type of equipment the Marine Corps will need to accomplish its worldwide mission.

Procurement of the modern air-cushioned landing craft, LCAC, continues. With its high speed and longer range, the LCAC not only improves the Marine Corps landing capability, but it also contributes to the survivability of the amphibious forces by allowing the ships to stand further offshore.

Mine warfare considerations, which were neglected during the declining Navy budgets of the last decade, are being strongly reemphasized. In the past 3 years we have been making major progress. The Navy's program this year takes significant strides toward restoring and upgrading our mine warfare capability, an aspect of naval warfare that has tremendous potential, both offensive and defensive.

The captor deep water ASW mine, now distributed among our Atlantic forces, will this year be given to the Pacific fleet. We expect maximum production and distribution to be reached in fiscal year 1984.

Construction of mine warfare ships to provide deep ocean countermeasures capabilities continues, with funding requested for 113 ships over the 5-year period.

A new class of minehunter, the MSH–1, will be introduced in fiscal year 1984, to complement the 13 mine countermeasures ships requested. Construction of at least 11 of these low-mix ships is planned.

As we build our forces, we continue to examine and extend our mine warfare planning, ensuring that this warfare area is integrated coherently into offensive battle group operations.

I am satisfied that our ship and aircraft procurement plans will provide for much needed improvements, and they will add significantly to our ability to meet the unique demands of maritime warfare. There is, however, a continuing concern. While the overall number of ships and aircraft we have been able to include in this year's plans is encouraging, I need to point out that more than half of these are scheduled for procurement in the last 2 years of the program. Once again, we are in the position of depending on the out-years, and, as I have said to you for the past 2 years, "The outyears must come to pass." The trends demonstrated in the administration's fiscal year 1982 and fiscal year 1983 budgets and congressional response

give us considerable reason to be more comfortable than in prior years. In the final analysis though, it will be up to the Congress to determine whether we will meet these objectives or not.

MILITARY MANPOWER

There is much good news to share with the Congress this year with respect to the military manpower situation in the Navy, in stark contrast to the alarm I registered with you during the 1979 and 1980 congressional hearings. You will recall then that we were experiencing the poorest retention in years, and more and more ships and aviation squadrons were reporting C–4 readiness (not combat ready), due almost soley to the absence of sufficient numbers of qualified personnel. One commanding officer, so short of required talent, even refused to get underway. What a different picture we see today. It is a pleasure indeed to be able to report to Congress that in the last 14 months, or so, there has been a major turnaround in the attitude, morale, and retention of our experienced careerists.

There are three principal reasons for this change in direction, in my judgment.

First, recently there has been a growing awareness on the part of the American public in favor of personnel serving their Nation in uniform. The activities of the Soviets worldwide, particularly in Afghanistan; the Americans being held hostage in Iran, to the humiliation and frustration of this great Nation; a new sense of concern on the part of the Congress of the United States regarding support for our military people; and the very strong leadership provided by the Commander in Chief add up to a sense of appreciation that has not been felt by military people for many years. In his recent State of the Union Address the President declared that "our country's uniform is being worn once again with pride." He is so very right.

Second, and surely most importantly, has been the combined effect of the two military pay bills which were enacted by the Congress in 1980, and again last year in the 1982 bill. The effects of increased basic pay to levels which approach those that existed at the time of the creation of the All-Volunteer Force, the new variable housing allowance, the sea pay provisions, the willingness to reimburse military personnel for directed moves from one station to another (although not yet resolved adequately), the enhancements to selected reenlistment bonus, and a number of other important ancillary pay and benefit issues have had an overwhelmingly positive effect.

And third, the leadership in the Navy, throughout the chain of command has been doing a very impressive job of running the Navy right. Our "pride and professionalism" program is producing stunningly positive results. The leadership-management-education-training program (LMET) is now well entrenched. Its positive effects are being manifested daily. The improved responsiveness of the legal system in support of commanding officers has given the C.O. renewed confidence that disciplinary cases will be handled promptly and judiciously. Attrition is down—desertion down more than 30 percent—and attitudes are up. Sea duty extensions have increased 58 percent last year over 1980 and requests for sea duty as a reenlistment incentive rose 33 percent. These are significant and healthy indicators.

There is no better indicator of the true impact of these three dominant factors than retention of career personnel. The following will give you a feel for the degree of improvement that has been taking place:

[In percent]

	Fiscal year—		
	1980	1981	1st quarter 1982
1st term	36.7	41.7	52.8
2nd term	50.5	56.9	69.0
3rd term and beyond	91.6	94.1	95.9
Total career	67.0	72.8	81.1

Clearly, we are on the right track. These are among the highest retention figures any of us can recall. There is reason for much encouragement. There is every reason to believe we can fully man the 600-ship Navy given sustained retention performances like this.

The number of incidents of desertion provides a good indicator of just how well we are running the Navy. Effects of LMET, our significantly revised boot camp syllabus, and professionally upgraded technical training schools are in large measure responsible for these reductions. I am completely confident we will show steady improvements in the months ahead.

	Incidents/1,000
Fiscal year:	
1978	30.6
1979	29.6
1980	26.5
1981	21.8

Officer retention continues to be a major concern, as the Navy remains some 3,317 officers short in the mid-grades. A shining example of the positive impact that a solid compensation package can produce in terms of retention is the aviation officer continuation pay (AOCP) bonus, enacted by you last year. The most significant indicator of the success of AOCP is the increase in mid-grade pilot inventory. Original estimates forecast a savings of 298 pilots in the first year of AOCP operation. Actual gains are 489. The replacement costs of those who were retained would have amounted to $371 million. The actual cost of AOCP was $26.4 million. That is what I call a real bargain. Still, our inventory is in a deficit position right now. We need to continue to achieve gains of this size to get well. While the retarded state of airline hiring, plus new compensation initiatives and general economic condition, has certainly affected pilot inventory, the majority of the 489 pilot gains can be directly attributed to the aviation bonus. I strongly encourage you to extend the life of this powerful retention tool beyond the current expiration date of September 30 of this year.

My final observation with respect to military personnel is to reemphasize the tremendous admiration that I hold for our Navy people today—for what they are doing for this country. We continue to ask them to go on 7 and 8-month cruises. We continue to demand that they work extraordinary hours because of the shortage of talent within a given unit. We continue to order them to the Indian Ocean for periods of 50 and 60 days at a time without a day of shore leave. We continue to expect them to be completely responsive to any contingency that might occur around the globe—and they are. They meet every challenge with inspired professionalism that brings great personal pride to me as Chief of Naval Operations. It helps me stand a bit taller every day.

The support that you have given them in the past has been crucial. That support must continue—must not wither—must not recede in the heat of budget debates. The Navy remains some 22,000 petty officers short. That shortage, while declining steadily over the next 5 years, will nevertheless remain significant, which means there will be little let-up in the extraordinary demands we place upon the individual sailor and marine. Without continued congressional support, we cannot hope to eliminate the present deficit in trained, experienced manpower. With congressional support, we can be completely confident of our ability to do so—and of our ability to man the growing Navy that is so vital to our defense posture.

Unfortunately, there are some troublesome signs. For years the lump-sum payment selected reenlistment bonus (SRB) has been employed as an effective and flexible means of correcting specific skill shortfalls. SRB has proven time and again to be a most cost effective management tool. Regrettably, language accompanying the 1982 appropriation forced us to modify the SRB payment system, permitting only 50 percent of the funds to be paid lump-sum, the rest to be paid in annual increments over the term of enlistment. Additionally, adequate reimbursement for travel under government orders still lacks the full support of Congress it deserves. Military people are still being required to dig into their own pockets to pay moving expenses that are the proper responsibility of the Government, which permits them no choice but to move. Finally, separation questionnaires continue to show that quality petty officers in the ratings we most need are leaving the Navy early to ensure that they can use the education benefits they have earned under the GI bill before it expires in 1989.

I urge you, now that we have the kind of career attitudes we have been looking for, not to manipulate programs that you have put into place. Rather, I urge you to continue to demonstrate your long term commitment to our military people, thereby removing the uncertainty that has prevailed for so many years, the deep concern careerists have had about what is going to happen next to them or their retirement. Our people are confident now. We must maintain that confidence if we are going to

make the All-Volunteer Force work and if the readiness of the United States Navy is to continue to improve as we build a larger, more capable Navy.

PROSPECTS FOR IMPROVEMENTS

In previous testimony before the Congress, I have been compelled to point out that the first two budgets of my tenure, 1979 and 1980, established data points that trended in the direction of certain maritime inferiority if continued. When the 1982 budget was assembled and submitted a year ago, I was placed in the most uncomfortable position of being unable to support that budget because it would have marked yet another, the third, data point in the same unacceptable trend, perpetuating the downward spiral towards capitulation to the Soviet naval challenge. Happily, one year later I can point to two new data points: the 1982 budget as amended by the new administration, and the proposed fiscal year 1983 budget which is before you.

From all appearances, the message has been received—the "sense of Congress" resolution for a 600 ship Navy fortuitously finds itself in congruence with the new policy of the executive branch, which gives me considerable hope that we have turned the corner, that we are well along the road towards rebuilding our naval strength. Given the commitment to maintain this impetus over the remainder of this decade, I am now encouraged that I will be able to turn over to my successor a Navy that has momentum, building towards a goal of 15 carrier battle groups, 4 battleships (which in themselves provide a unique opportunity to create flexible surface action groups) a force structure of 100 or more nuclear attack submarines, enhanced and modernized amphibious forces, a revitalized and modernized mine warfare force, a highly survivable Trident I and Trident II strategic missile force, an enhanced sealift capability which for the first time in decades will give us the ability to respond flexibly and promptly wherever necessary around the globe, and an effective maritime pre-positioning force. Taken together, these programs, properly supported and maintained, should assure that my successor's successor will see the restoration of U.S. maritime superiority around the globe, regardless of Soviet achievements in the meantime.

I am acutely aware that we are asking you and the public to support a large increase in the numerical and qualitative strength of the United States Navy. But it is essential that this be done on an expedited and continuing basis. I am confident that this renaissance of emphasis on maritime strength and strategy represents, in its most basic terms, a recognition by the American people and by their elected representatives of what is desired and required to assure the protection of this country's most fundamental interests.

Not only have the unfavorable budget trends of the past decade been reversed, but this past year has been a relatively impressive one for the United States Navy when compared to its principal adversary. Though the Soviets continue to outbuild us in numbers of ships, as they must if they are to maintain a force almost three times as large as ours, your decisions of prior years are coming into fruition and are more and more impressive. For example, this past year we received seven *Los Angeles* class SSNS, as contrasted to the one of the previous year. The *Perry* class frigate has now completed its shakedown and the fleets are receiving one ship every 50 days on the average. The *Kidd* class destroyers are out and operating, as is the last of the five LHAS. *Vinson* (CVN-71) has completed its construction and will enter the operating forces next month. The F-14 now dominates the fighter force in the Navy, while the F/A-18 program has virtually completed its test program, accumulating over 5,000 hours and is ready for introduction into the Marine Corps this year and the Navy next year. The Harpoon missile is now a common sight aboard a wide variety of our surface combatants, as well as adding to the offensive capability of the P-3 patrol planes. New Sonars and Towed Arrays are providing us assurance that we will remain well ahead of the Soviets in antisubmarine warfare. The attack aircraft of our carrier air wings now are comprised 100 percent of A-6E and A-7E, the most capable attack aircraft in the world today, night and all-weather included.

The Congress will determine the ultimate size and quality of the Navy we will have. But the Navy is fully sensitive to our responsibility to the taxpayer to spend our allocated resources efficiently. Whatever the size of the fleet that results, you can be sure that we will do everything in our power to make it a first class, professional Navy—one that is ready, sustainable, and manned by the most highly trained and dedicated men and women.

Mr. Chairman, we are a Navy on the move, with a full head of steam. We are a Navy with confidence. We are a Navy determined to be the finest professional force

at sea, today and in the future. With your strong support we will accomplish all of these objectives with assurance and ease.

SHIPBUILDING

	1983	1984	1985	1986	1987
New Construction:					
Trident	2	1	1	1	1
CVN	2				
SSN-688	2	3	4	4	4
CG-47	3	3	3	4	4
DDG-51					3
CGN-42					1
DD-963				2	1
LSD-41	1	1	2	2	2
LHD-1		1			1
FFG-7	2	2	2	3	3
MCM	4	4	5		
MSH-1		1		5	5
AD				1	1
TAO	1	3	4	4	6
AGOS		1		2	3
AE			1	2	1
TARC				1	
ARS	1	1			
AOE			1	1	2
Subtotal	18	21	24	32	38
Conversion/reactivations:					
CV SLEP	1		1		1
BB (React)	1	1	1		
TAGS (Conv)			2		
TAGM (Conv)				1	
TAHX(C) (Acq)	1	1			
TAKRX	4				
TAK(FBM)(C)			1		
Total	25	23	29	33	39

AIRCRAFT PROCUREMENT

A/C	1983	1984	1985	1986	1987
A-6E	8	8	12	12	12
EA-6B	6	6	6	6	6
F-14A	24	30	30	30	30
AV-8B	18	30	48	60	60
F/A-18	84	96	108	132	132
SH-2F	18	18	18	18	—
CH-53E	11	11	11	14	14
SH-60B	48	64	74		
SH-60 (CV Var)				64	64
SH-1T		22	22		
P-3C	6	5	5	5	5
E-2C	6	6	6	6	6
UC-12B			12	12	37
C-2	8	8	8	8	7
T-44				15	
HXM					6
T-34C	30	28	28	28	30
TH-57	21	21			
C-9		2	2	2	2
F-5E		4	4	4	4
VTX				12	24

AIRCRAFT PROCUREMENT—Continued

A/C	1983	1984	1985	1986	1987
ECX			3	3	3
Total	288	359	397	431	442

Chairman TOWER. Thank you, Admiral.
General Barrow?

STATEMENT OF GEN. ROBERT H. BARROW, COMMANDANT OF THE MARINE CORPS

General BARROW. Mr. Chairman and gentlemen of the committee, I am pleased to be here again this year. I will begin by thanking this committee for its continuing strong support of, and interest in, the U.S. Marine Corps.

The Navy often says, and I have heard Admiral Hayward say, that they fight a three-dimensional war, above the sea, on the sea, and under the sea. I will submit that we add a fourth dimension, the Marines commence their fight from the sea, and together, we do indeed represent the totality of what is called seapower. It is not enough just to be able to control the seas. It is also essential that we have the capability to project our power to the distant shore.

I only know of two places in this world where we have a ground force present, the central region of Europe and the Korean Peninsula. We have a lot of global interests and everywhere else in the world, except those two places, we must start, necessarily, from zero. For whatever reason we may go to some distant place to assert our military capabilities one must assume that it would be a military endeavor and unfriendly at the other end. Therefore, we must go prepared to forcibly enter whatever place it is we are going to. That is the centerpiece of the Marine capability.

AMPHIBIOUS WARFARE

We can do a lot of things and have, and always will beyond that. However, the centerpiece of our capability is our capability for amphibious assault along with our friends in the Navy. I have, from time to time, had people question the viability of amphibious warfare in the future. I like that debate because it is an easy one to win. I know of no other way to enter the conflict than by forcible entry, other than some unusual circumstances such as a secured situation provided by a host country which might permit, for example, maritime pre-positioned ships to be employed.

Having said that, let me say that this budget, which really started last year, does more to improve the Marine Corps, which is already good, than any other in peacetime. Our sustainability over the next years is going to be dramatically improved as will our readiness. Perhaps the biggest improvements of all are in the area of modernization, some ongoing, some waiting to happen if we get the funding. I would like to touch on those because they are terribly important in making your Marine Corps more capable than it already is.

We are talking primarily about firepower and mobility. Let us begin with the infantry battalion, of which we have 27. This is the

unit around which most things revolve. We are going to reduce the infantry battalions, personnel by about 10 percent, but increase firepower by about 25 percent. We have the new 50-caliber machinegun, new lightweight company mortar, the MK-19 40-millimeter machinegun, which has high promise, and the new shoulder-launched multipurpose assault weapon.

We add additional Dragons. It is going to be a much more viable fighting-capable organization. We have already started enhancing the capability of our artillery. Last month we started the phase-in of the M198 155-millimeter howitzers in the 2d Marine Division and will continue that over the next several years for our direct support artillery, replacing the old M101A 105-millimeter howitzer.

There is a lot of interest in antiarmor and indeed there should be. I would like to underscore that we are involved in a number of programs that will deal with that problem. Yes, we are interested in the mobile protected gun system with the Army. Presently both are taking a hard look at the 75-millimeter high-velocity gun. I am optimistic that eventually we will have something on the street in that connection.

We are doubling the number of TOWS in our three divisions. We are increasing the Dragons. We are, as I indicated earlier, putting into the force starting in 1983 the MK-19 40-millimeter machinegun, which has a 2,000 meter range and takes care of the enemy infantry fighting vehicles very nicely. We are monitoring the Army light, close-in antiarmor program, but at the same time we are looking at some prospects that are foreign made.

Artillery munitions relating to antiarmor are very encouraging, particularly in the mine area. There is an array of aviation ordnance that is equally applicable.

STRATEGIC MOBILITY

Turning now to the mobility aspect, I would begin first by saying something about strategic mobility. This budget continues to pursue the course laid out by the Secretary of the Navy when he took office. His firm goal adopted by the Department of Defense, stated that we would have an amphibious lift capability to simultaneously lift the assault echelon of a Marine amphibious force and a Marine amphibious brigade. There is much to be encouraged about it in this connection. However, in recognizing the block obsolescence which confronts us, we must assure that growth in the lift objective is not offset by losses in the inventory of amphibious ships, to the extent that we do not make any progress toward that goal.

Another strategic mobility enhancement which I fully support is the maritime pre-positioning ships concept. As you know, ultimately we are to have three such formations composed of 12 to 15 ships, all to be on line by 1987, and they will have the capability to have in their holds an equipment layette for three 16,500-man Marine amphibious brigades, weapons, equipment of all types, and 30 days' supplies.

Admiral Hayward mentioned the 13 near-term pre-positioning ships presently at Diego Garcia. Seven of those are in direct support of the Marine Corps for a 12,000-man brigade. We have had

ample opportunity now to determine whether that is a good concept or not. It is indeed a good concept, particularly as it relates to how well the equipment is doing in that kind of deployment, in the dehumidified storage they are kept in. We have recycled, more than once, all the ships that have been out there and have been pleasantly surprised to find minimal problems.

TACTICAL MOBILITY

Moving to the tactical mobility aspects of the modernizaton of the Marine Corps, I am very supportive of the air cushion landing craft which will open up many more littorals of the world to amphibious assault and produce greater flexibility in the actual execution.

The CH-53 Echo is living up to its promise in every way. We have already completed the delivery of 15 aircraft to our squadron down in New River, N.C., and we are setting up a second squadron in California starting this month. They have received their first aircraft. It has worked out as we predicted it would. It is the free world's largest helicopter.

The LVT program is also on track and this workhorse of the Marine Corps deserves the support that you have given it up to now and will have to give in the future.

About the light-armored vehicle, let me say categorically that I enthusiastically support that program. This experiment that we are working on, in which we are compressing the acquisition cycle by buying off the shelf, is one that all of us need to be attentive to to see if we have not found a solution to the existing long B. & D. problem. So far the tests have gone well at Twentynine Palms, Calif. We will select the candidate of the four that are under test sometime this spring, and we are going into production contract along about July. I am encouraged so far by what I have heard, and it is a program that needs your continued support.

The high mobility multipurpose vehicle, the HMMWV you have heard about for so many years, has great promise. It will permit us to retire about 8 existing vehicle types, and reduce the total vehicle inventory of those types from about 26,000 down to about 14,000. This indeed will be a multipurpose vehicle which will add significantly to mobility on the battlefield.

MARINE CORPS AVIATION PROGRAMS

I would next like to touch briefly on some of the Marine Corps aviation programs. Some of these programs of course, are also Navy programs. I have already talked about the CH-53 Echo in connection with mobility.

The AV-8 Bravo. Let me say again, I categorically and enthusiastically support that program just as it has been supported for so many years by the Marine Corps. It is going well. The full-scale development aircraft that went into test last November has, according to all accounts, done everything we expected it to do and we have every reason to be encouraged.

The FA-18. The Marine Corps is scheduled to stand up the first squadron in July of this year, the second in October and the third in January of next year. For reasons I do not understand, I continue to read criticisms of this aircraft. I am not an aviator, but I am terribly interested in every aspect of aviation, and I have to get my

advice from my own aviators, whom I trust in such matters, and I have not found one who does not enthusiastically support that aircraft. People who have flown it, speak of it as being superior in its fighter mode and superior in its attack mode also.

In aviation we are increasing our light antiaircraft missile battalions to give us a greater capability. Along with that, our forward area air defense, armed with the Stinger missiles, will have some additional units brought out of cadre so that altogether our air defense ability is being enhanced.

I do have some concern. I have just described a pretty rosy picture, but I have some concern. We have the CH–46 Echo and the CH–53 Alpha and Delta models, the medium transport helicopters which are the bread and butter of our ship to shore and subsequent movement of troops around the battlefield. These are aging vehicles and will decline due to attrition and so forth by the end of this decade.

The Deputy Secretary of Defense recently signed an order directing the tri-service development of an advanced rotorcraft which shows great promise. The IOC is in the early nineties.

My concern is that we may not be able to retain our capability until the arrival of the new aircraft that has been proposed. Therefore, we must be attentive to the possibility of providing some sort of interim solution to that problem.

NAVAL GUNFIRE

Another concern of mine, deep concern, is naval gunfire. We don't talk enough about it. The Marines are the big users. The Navy is the provider. It is an endangered species.

Yes, I am delighted that the battleship is returning. Those nine 16-inch guns on the *New Jersey* and those that follow on will make a dramatic difference in the forcible entry problems we confront, particularly in general area coverage.

The kind of support I am concerned about has to do with the more precise kind of medium range naval gunfire. I will be glad to talk about that later if anyone has any questions because it does concern me that there is no movement in that area.

I am also very supportive of something that has been neglected for much too long, and I commend you gentlemen to be interested in it. That is adequate medical facilities in the communications zone of the next conflict. I support the fleet hospital concept most enthusiastically. It would be a terrible tragedy for us to go somewhere and lose a lot of Marines, soldiers or anyone else, because we were inattentive to this particular problem.

Now, so far I have talked about things in rather glowing terms of how we are going to increase our firepower and mobility and that you are going to have a more capable Marine Corps.

I am sure that somewhere in this room someone is saying, my gosh, the Marine Corps is getting to be terribly expensive. Can we afford it? Not only can we afford it, I submit that you are receiving a bargain because if you look at 10 years, 1978 to 1987, the Marine Corps percentage of the Department of Defense total obligational authority ranges from 2.3 to 2.8 percent.

If you added the blue dollar support most frequently thought of in terms of aircraft procurement, it would add up so something less than 2 percent over the same 10 years each year. This year, putting the blue and green dollars together, they represent 4.6 percent of total Department of Defense TOA. So it could be characterized as a bargain.

Now I would like to turn to a subject which is most important to me, the people business. It transcends everything else in importance. I give it more of my personal attention than perhaps anything else in the Marine Corps.

PEOPLE BUSINESS

As most of you know from my previous testimony I am not an enthusiast for the All-Volunteer Force; but it is what we have to work with and we must therefore, put our money up front. We have put the best people we have in the Marine Corps on recruiting duty we have dedicated dollars, we have developed good policies, and we are, as a consequence, making it work.

Let me give you an example. Fiscal year 1980 was regarded as a fine year both in terms of quality and quantity, but 29 percent of the people recruited in 1980 would have been ineligible by 1982 standards.

How are we doing in 1982? The first 4 months of this fiscal year we have shipped to the recruit depots or put in the delayed entry pool 62 percent of our total year requirement. What do they look like in terms of quality? Of that group, the 62 percent, the mental group 4 percentage, which is one of the important quality indicators, is 7.5 percent. That is a dramatic decline by anyone's measurement.

Some might say that all of this success is a consequence of a soft economy. Maybe it is, but we have proof that in some areas of the country where unemployment is low we are still doing very well. Houston, Texas has a 4-percent unemployment rate and our recruiting station there is booming. I think there are many more reasons for it than just perhaps the soft economy.

We are also doing well in our reenlistments. Last year we were 2,000 over our goal, and the first 4 months of this year we are already 1,000 over our goal. This portrays to me a great picture for the future of the Marine Corps.

We are building a Marine Corps that is going to be absolutely magnificent in the people part of it, and only needs the help of the Congress to give it the modernization, sustainability, and readiness to make it what it really should be.

Where are all these Marines? They are out there training hard and deploying frequently. As I talk to you today we have a unit 160 miles north of the Arctic Circle in Norway, a 2,000-man unit in the bitter cold, proving we can do it. Another similarly sized unit has come off a landing exercise in Australia, and yet another one lands this week in Spain. We are literally all over the world. We look good and have high spirits.

If this committee could see them as I do, you would be as proud of them as I am.

Thank you very much.

[The prepared statement of General Robert H. Barrow follows:]

PREPARED STATEMENT OF GENERAL ROBERT H. BARROW, COMMANDANT OF THE MARINE CORPS

MARINE CORPS POSTURE, PLANS, AND PROGRAMS

Mr. Chairman, distinguished members of the committee: It is again a privilege for me to present my annual report on the posture, plans, and programs of the Marine Corps. My statement will focus on: what we are doing to enhance the capabilities of the Marine Corps; those Navy programs which bear directly on our capabilities; manpower; some of the recent operational accomplishments of your Marines; and what we are doing to effectively manage the financial resources for which we are responsible.

Before I detail my views, however, I want to thank the members of the committee and the entire Congress for the support given to the Military Services during the past year. We in the Marine Corps fully appreciate that the leadership of this nation, as embodied in the executive and legislative branches, has had to address many difficult issues in their efforts to improve our nation's defense. In that regard, I am very conscious of my responsibilities with respect to the dollars appropriated for the Marine Corps. The Marine Corps has a reputation for frugality. We will continue to strive to be deserving of that reputation.

Changes on the international scene since my last report have certainly not diminished this nation's requirement for ready and responsive forces possessing a wide spectrum of capabilities. Pursuant to the tenets of sea power, naval forces possess the means to satisfy a large portion of those requirements and provide the most flexible response to global threats from our adversaries. The Navy and Marine Corps, as a team, are the vital implements of sea power and, as such, serve as instruments for diplomacy and for deterrance.

The Marine Corps provides unique capabilities designed to support our special role in the nation's defense. The presence of amphibious task forces, both in routine forward deployments and in response to crisis situations, supports this nation's diplomatic goals by bolstering allies and friends, by performing humanitarian acts, and by contributing to regional stability. This same presence serves as a deterrent to those who would seek to undermine international stability.

In defense of our vital interests, and those of our Allies, this nation must be capable of projecting its power across the seas. More importantly, in those areas of the world where no force presence exists on the ground, the forcible entry capability represented by Navy/Marine Corps amphibious forces is our nation's most essential military asset. Virtually all of the world's coastal areas are accessible and susceptible to amphibious assault.

Marine Air-Ground Task Forces (MAGTFs) can be tailored to satisfy specific mission requirements and are capable of conducting the full spectrum of military operations ashore, at varying levels of intensity. Each MAGTF is logistically sustainable from the sea, and its capabilities can be integrated with those of other Services and our Allies.

Amphibious forces provide capabilities essential to the Navy's sea control mission and its efforts to maintain vital access to the sea lines of communication. Amphibious forces can seize and control strategic choke points and entry points, as well as advances bases. Such global reach can take full advantage of Soviet tactical and strategic vulnerabilities that are identified across the extensive littorals they must defend.

To support and foster the foregoing capabilities, this country has what I would call certain maritime prerequisites. One of these is our maritime heritage, which must not be put aside but must be preserved and nurtured. Further, the geographical and economic realities of our way of life and position as the leader of the free world require a continuing emphasis on national maritime strategy, a strategy that will lead to clear maritime superiority, at the times and places of our choosing. In order to achieve maritime superiority, there is a compelling need to produce ships, military and civilian, so we may maintain freedom of the seas, provide deterrence at sea and project that power from the sea should deterrence fail. Equally compelling is the need to enhance our strategic mobility and sustainability to ensure that, when force presence is required, we can respond rapidly and with credibility. Finally, we must broaden the national understanding of the need for fulfilling out maritime prerequisites and maintaining the capability for implementing maritime superiority.

To best prepare the Marine Corps for the challenges ahead, we are proposing certain enhancement initiatives designed to foster and improve our capabilities. I must emphasize that there exists the necessity to continue to revitalize our national defense in the face of a continuing and ever increasing Soviet threat. Understanding the need for prudent utilization of scarce resources, we in the Marine Corps are proposing initiatives that strike a balance between vitally needed modernization programs and programs designed to support current readiness and sustainability. The cutting edge of the Corps, our ground forces, is the object of enhancements designed to sharpen that edge.

The Marine infantry battalion is the basic tactical unit of ground combat power and a balanced force of combined arms. Emphasis during the 1980s is to significantly increase firepower through the introduction of new weapons and the modernization of current weapons, while reducing infantry battalion personnel requirements by 10 percent (figure 1 refers).

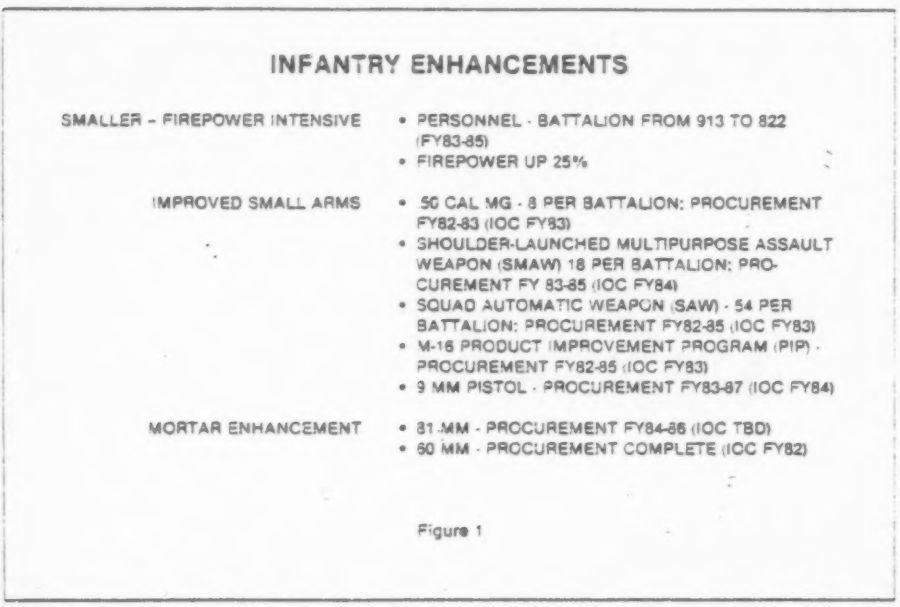

INFANTRY ENHANCEMENTS
SMALLER - FIREPOWER INTENSIVE
• PERSONNEL - BATTALION FROM 913 TO 822 (FY83-85)
• FIREPOWER UP 25%
IMPROVED SMALL ARMS
• .50 CAL MG - 8 PER BATTALION; PROCUREMENT FY82-83 (IOC FY83)
• SHOULDER-LAUNCHED MULTIPURPOSE ASSAULT WEAPON (SMAW) 18 PER BATTALION; PROCUREMENT FY 83-85 (IOC FY84)
• SQUAD AUTOMATIC WEAPON (SAW) - 54 PER BATTALION; PROCUREMENT FY82-85 (IOC FY83)
• M-16 PRODUCT IMPROVEMENT PROGRAM (PIP) - PROCUREMENT FY82-85 (IOC FY83)
• 9 MM PISTOL - PROCUREMENT FY83-87 (IOC FY84)
MORTAR ENHANCEMENT
• 81 MM - PROCUREMENT FY84-86 (IOC TBD)
• 60 MM - PROCUREMENT COMPLETE (IOC FY82)

Figure 1

NOTE.—Other infantry weapons enhancements shown in figure 2 Anti-Armor Enhancements.

Improved anti-armor capabilities are required to help defeat the growing armor threat that Marine forces are likely to encounter in potential contingency situations worldwide. Our plans are to double the inventory of heavy anti-tank (AT) weapons and increase the number of medium AT weapons by 25 percent in the Marine division structure. One hundred eighty MK-19 400mm machine guns will be added to the division to counter the growing numbers of infantry fighting vehicles that potential enemies are introducing in their forces, while the development and introduction of the Mobile Protected Gun System and tank modernization initiatives are required to couunter enemy tank capabilities and improve the overall mobility of Marine forces on the battlefield. In addition, we will continue to emphasize the further modernization of Marine air delivered anti-armor munitions. Finally, we will continue to monitor U.S Army and foreign anti-armor weapons systems development for potential further enhancement of Marine anti-armor capabilities (figure 2 refers).

ANTI-ARMOR ENHANCEMENTS

TUBE-LAUNCHED, OPTICALLY-TRACKED, WIRE-GUIDED MISSILE (TOW)	• 144 TOW/DIVISION-PROCUREMENT FY80-86 (IOC FY82) • PHASE I PROCUREMENT COMPLETE FY81-5" WARHEAD AND EXTENDED RANGE TO 3750 M (IOC FY81) • PHASE II PROCUREMENT BEGAN FY80-6" WARHEAD, EXTENDED RANGE AND ELECTRICAL OPTICAL COUNTERMEASURES (EOCM) (IOC FY83) • NIGHT SIGHTS, 72/DIVISION-PROCUREMENT FY80-86 (IOC FY82)
DRAGON	• 8 ADDITIONAL/BATTALION, TOTAL 32 (IOC FY83) • NIGHT SIGHTS, 16/BATTALION-PROCUREMENT FY79-83 (IOC FY82)
MK-19 40MM MG	• 12/INFANTRY BATTALION AND TOW PLATOON-PROCUREMENT FY82/83 (IOC FY84)
MOBILE PROTECTED GUN SYSTEM (MPGS)	• HELICOPTER TRANSPORTABLE • JOINT USMC/US ARMY PROGRAM (IOC 1988)
TANKS	• M60A1, END OF SERVICE LIFE LATE 1980s • REPLACE OR UPGRADE • ENHANCED ANTI-ARMOR CAPABILITY
AIR DELIVERED	• MODERN ARMOR THREAT NECESSITATES AIR DELIVERED ANTI-ARMOR WEAPONS WHICH OFFER INCREASED AIRCRAFT SURVIVABILITY AND TARGET LETHALITY • NEAR-TERM, STATE-OF-THE-ART, ANTI-ARMOR WEAPONS BEING PURSUED FOR BOTH FIXED WING AND HELICOPTERS - LASER MAVERICK - FIXED WING PGM (IOC FY85) - HELLFIRE - HELICOPTER PGM (IOC FY86) - GATOR - AREA/AREA DENIAL WEAPON (IOC FY86) - 25MM MULTI-PURPOSE GUN FOR THE AV-8B (IOC FY85)
LIGHT ANTI-TANK WEAPONS	• CONTINUE TO MONITOR ARMY PROGRAM - INTERESTED IN COST REDUCTION AND PRODUCT IMPROVEMENTS • CURRENT STUDY TO DETERMINE USMC ANTI-ARMOR REQUIREMENTS • CONDUCTING FOREIGN WEAPONS EVALUATION OF LIGHT ANTI-TANK WEAPONS WHICH INCLUDES LAW-80

Figure 2

Artillery provides the means or timely, close, accurate and continuous fire support. The Marine Corps intends to increase the lethality, range and overall capabilities of Marine artillery units by replacing the 105mm howitzer with the M198 155mm towed howitzed as the primary direct support artillery weapon, and acquiring additinal M109 155mm self-propelled howitzers. The introduction of laser guided ammunition will significantly increase accuracy, while the addition of Target Acquisition Batteries will further strengthen and enhance the flexibility and overall effectiveness of artillery units (figure 3 refers).

ARTILLERY ENHANCEMENTS

CONVERSION TO M-198	• NEW IMPROVED STRUCTURE TRANSITION FOR FY83-85, PROCUREMENT FY79-82 (IOC FY82) • 105MM HOWITZER REDUCTION OF 138, 155MM HOWITZER INCREASE OF 168
ADDITIONAL 155MM (SP)	• INCREASE OF 30 TUBES - 3 BATTERIES BY FY86, TOTAL 5 BATTERIES BY FY89
ADDITION OF TARGET ACQUISITION BATTERY	• ONE EACH IN FY85, 87 AND 88
PRECISION GUIDED PROJECTILES	• MODULAR UNIVERSAL LASER EQUIPMENT (MULE) PROCUREMENT FY82-85 (IOC FY84) • COPPERHEAD - PROCUREMENT BEGINS FY83 (IOC FY84)
FAMILY OF SCATTERABLE MINES (FASCAM)	• AERIAL DENIAL ARTILLERY MUNITION (ADAM) (IOC FY82), ANTI-PERSONNEL MINES AND REMOTE ANTI-ARMOR MINE (RAAM) ANTI-TANK MINES - PROCUREMENT FY81 (IOC FY83)
ARTILLERY COMPUTER SYSTEM	• PROCUREMENT FY84 & 85 (IOC FY85)

Figure 3

Tactical mobility provides the means to rapidly close with and destroy the enemy and to logistically support Marine Corps forces in a highly mobile environment. There are one long-term and three near-term acquistion programs intended to improve our battlefield mobility. A new family of light armored vehicles integrated with infantry units will not only enhance tactical mobility but will increase our overall combat capability. A new multi-purpose vehicle will streamline maintenance, training and logistic support. In addition, it will reduce our total number of vehicles while increasing our lift capacity. The amphibious assault vehicle's sevice life will be extended into the 1990s while the Marine Corps develops a follow-on vehicle with a lower silhouette, increased firepower and better armored protection (figure 4 refers).

MOBILITY ENHANCEMENTS

LIGHT ARMORED VEHICLE (LAV)	• LIGHT WEIGHT, FLEXIBLE, AGILE, FIGHTING VEHICLE • FIREPOWER INTENSIVE ORGANIZATION • 145 LAVs/LAV BATTALION (CY83) • HELICOPTER TRANSPORTABLE • ENHANCED STRATEGIC TRANSPORTABILITY
HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV)	• ENHANCED TOW CARRIER • WEAPONS PLATFORM FOR MK-19 40MM MG • REPLACES 8 MT VEHICLES IN MARINE DIVISION • REPLACES ALL COMMUNICATIONS VEHICLES • 26,000 CURRENT MARINE CORPS VEHICLES REPLACED BY ABOUT 14,000 HMMWVs (IOC FY85)
LANDING VEHICLE TRACKED (LVT7A1)	• SERVICE LIFE EXTENSION PROGRAM BEGINS 1984 • EXTENDS USE UNTIL 1990s • NEW ENGINE, NON-INTEGRAL FUEL TANK, ALL ELECTRIC WEAPONS STATION • 329 NEW LVTs FOR MPS
LANDING VEHICLE TRACKED (EXPERIMENTAL) (LVTX)	• FOLLOW-ON TO LVT7A1 (IOC EARLY 1990s) • INCREASED FIREPOWER, IMPROVED ARMOR, LOWER SILHOUETTE

Figure 4

While anti-armor and tactical mobility enhancement are vital to our success on the modern battlefield, equally vital will be our ability to protect ourselves and function in a chemical warfare environment. As I reported to you last year, I consider our capabilities in this area to be marginal. Technological advances, equipment developments and continued Congressional and Defense Department support are doing much to overcome deficiencies. However, much more remains to be done. The Soviet chemical threat is well known to the members of this committee, and I am confident that, in recognizing that threat, you will continue to support Service initiatives to deal with it.

Modernization of our Marine Aviation component continues to be a major goal. My number on priorty in this area is the development and acquisition of a new helicopter to replace our aging medium helicopter fleet of CH-46s and CH-53A/Ds. Due to fiscal constraints and the current state of rotorcraft technology, a replacement will not be available until the 1990s. To meet our vertical lift requirements until the introduction of advanced technology replacements, the Marine Corps will need to augment its dwindling assault helicopter fleet with additional off-the-shelf helicopters. Funding requested in fiscal year 1983 will allow us to initiate this fleet augmentation program.

Necessary modernization in three other Marine Aviation communities is moving forward at a steady pace. One of our highest priorities is to modernize Marine light-attack force capabilities by replacing A-4M aircraft currently in the inventory with the Harrier. The successful flight testing of the first Full Scale Development AV-8B will allow us to meet the planned milestone of introducing the Harrier II into the Fleet in fiscal year 1985. Authority to procure eighteen AV-8Bs requested in fiscal year 1983 will be another significant step toward achieving a goal of an all VSTOL light attack force.

The Marine Corps fighter-attack (VMFA) community will begin its modernization program when Marine Fighter-Attack Squadron 314 turns in its F-4N Phantoms in April 1982 and reconstitutes as an F/A-18 squadron in July. After six months of transition training at Naval Air Station, El Toro and receive its complement of 12 F/A-18 Hornets. By the end of fiscal year 1983, the Marine Corps will have three operational F/A-18 squadrons. Nine more VMFA squadrons are scheduled to replace their F-4s with F/A-18s in future years.

The introduction of the CH-53E Sea Stallion helicopter into the Fleet has given the Marine Corps a much needed boost in heavy lift capability. Our first CH-53E squadron, HMH-464, is now operating with its full complement of aircraft while a second squadron, HMH-465, has been recently activated. The 11 CH-53Es requested in fiscal year 1983 will permit the Marine Corps to continue toward the planned buildup to the three CH-53E squadrons needed to minimally meet our current heavy lift requirements.

Another component of the Marine air-ground team which must be modernized is our ground air-defense forces. Overall capabilities of Marine Light Anti-Aircraft Missile (LAAM) battalions and Forward Area Air Defense (FAAD) platoons must be improved to counter the growing enemy air threat that our forces will encounter in any future conflict. Funding requested in fiscal year 1983 will permit the Marine Corps to increase the sustainability of its Improved HAWK equipped LAAM battalions as well as the capabilities of its FAAD platoons through the procurement of Stringer missiles.

In order to correct combat service support deficiencies, I issued a directive to my Fleet Marine Force Commanders during September 1981 detailing an activation schedule of previously cadred combat service support companies. The result of that directive will be the activation of units in all Force Service Support Group (FSSG) functional areas by the end of fiscal year 1983. This sequence will include activation in the areas of rations, marginal terrain transport, landing support operations, fuel, bridge and engineer support.

The activation of units in all functional areas within each FSSG provides the fully capable combat service support structure that must then be manned by Marines suitable for assignment to the FSSGs. Current manpower projections provide for progress in satisfying FSSG manpower requirements from the current 77 percent of requirement to 87 percent by 1987. This increase in the manning levels of the essentially complete FSSG structure will provide a substantial increase in the depth of capability within all critical functional areas (Figure 5 refers).

PERCENT OF FSSG COMBAT SERVICE SUPPORT CAPABILITY

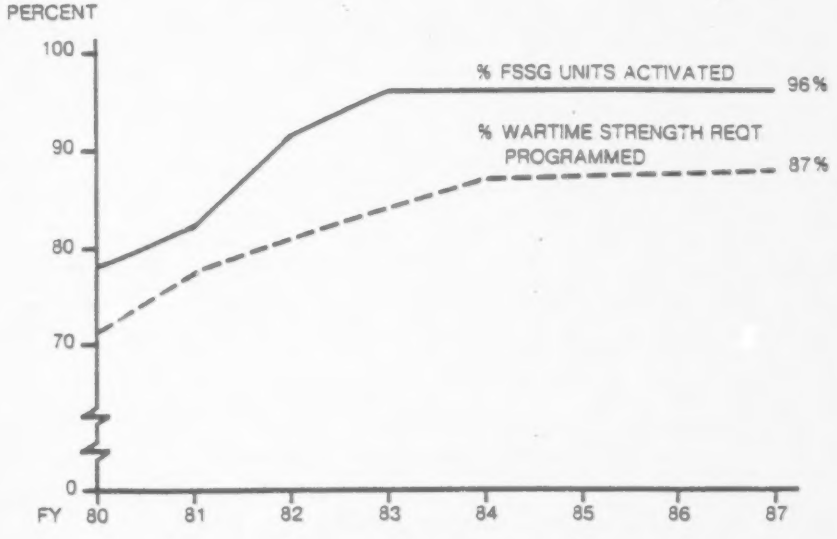


Figure 5

The activation of cadred companies and the projected increases in manning levels of the FSSGs are the result of a significant commitment of resources toward their support. The current improvements are the result of prior programmatic actions which must be fully supported through current and future programming actions. To

do any less will result in a decline of the combat service support functions and a very real possibility of returning to the previous state of degraded capability that existed throughout the FSSGs.

The modernization of our motor transport fleet continues to be one of my top priorities in the area of combat service support. Procurement of our new family of vehicles begins during this fiscal year. These vehicles will provide us with the capability to move weapons systems over previously inaccessible terrain as well as the capability to support the containerized cargo and standardized tactical shelter systems. Initial procurement of the remaining items of equipment of the Field Logistics System (shelters, containers, material handling equipment, water purification equipment and utilities distribution equipment) will also take place during this fiscal year. This system represents significant improvements which will provide the Marine Corps a new dimension in combat service support and enhance the logistics support capabilities of our Fleet Marine Forces (FMF).

MAGTFs are organized, equipped and trained to operate in a totally integrated combined arms structure which provides our commanders the capacity to control all elements of the team including ground combat, aviation and logistics. To that end, unique command, control, communications and intelligence (C3I) capabilities are required. Our programs for C3I systems will satisfy that requirement.

The Position Location Reporting System (PLRS), a fiscal year 1982 conferee funding deferral, is designed to provide commanders and equipped units with instantaneous friendly position and identification information. In 1983 this joint Army-Marine Corps development could well be into production with initial units scheduled for delivery to tactical forces in 1984. PLRS will interface with the Marine Integrated Fire and Air Support System, a real-time processing system which will be available in fiscal year 1987 to provide commanders selective automated assistance for accomplishing command, control, and coordination functions inherent to the employment of the MAGTF. Our Tactical Air Operations Center-85 is a modular, state-of-the-art, air control system that will replace current equipment which is approaching obsolescence. Its IOC of 1985 ensures that the Marine Corps will have a modern, deployable air control capability for the battlefield of the 80s and beyond.

A new manpacked UHF radio, which emphasizes small-size, light-weight, high reliability and an anti-jam capability, will be procured to support ground-to-air voice communications for tactical units. In addition, a new VHF-FM radio (Bancroft) with integrated communications security will be procured as a first step in replacing the aging Vietnam-era VHF-FM radios. The Bancroft radio will be used primarily in manpacked and vehicle applications where size and weight are of prime importance.

The Digital Communications Terminal is a hand-held, data communications device which will be used in a variety of applications including automated command and control systems. It will interface with inventory VHF, UHF and HF radios or standard voice grade telephone circuits. The Digital Wideband Transmission System will provide a multichannel, digital transmission capability for FMF units below Division/Wing level and will be used in conjunction with TRI-TAC switching equipment and Marine Tactical Command and Control System data terminal equipment.

In 1986, the Marine Corps' multichannel, switched communications system will begin a transition from a predominantly non-secure, analog system to a fully secure, all digital system. The TRI-TAC Unit Level Circuit Switch and Unit Level Message Switch, which were developed by the Marine Corps under the TRI-TAC program, will provide initial secure telephone switching service and automated data switching service for tactical data systems to all FMF units.

During fiscal year 1983, a deployable automated service center will be fielded in the FMF. This center, configured in trailers, will facilitate combat service support for MAGTFs and replace existing obsolescent, bulky computer centers.

Finally, we have a clearly defined requirement to improve our intelligence production capability. Congress has recognized our deficiencies, and those of the other Services. The full field deployment of the Marine Air-Ground Intelligence System will significantly enhance our ability to support tactical commanders. In related intelligence initiatives, great strides are already being made in the Tactical Exploitation of National Capabilities program which enables the tactical commander to "tap" national resources. Additionally, we are in the process of upgrading and enhancing our Signals Intelligence and Electronic Warfare Systems to improve our tactical and strategic intelligence collection capabilities. These initiatives are particularly critical to Marine units supporting the Rapid Deployment Joint Task Force (RDJTF).

NAVY PROGRAMS OF SPECIAL INTEREST

The Department of the Navy has established a firm goal: to acquire sufficient amphibious shipping to transport, simultaneously, the assault echelon (AE) of a Marine Amphibious Force (MAF) and a Marine Amphibious Brigade (MAB). Attainment of this goal will permit the simultaneous undertaking of two significant amphibious operations in separate areas of the world.

Unfortunately, the total current inventory of sixty-seven amphibious ships, contained in both the active and reserve fleets, falls far short of the MAF(AE) plus MAB requirement, and I am greatly concerned. Because at least fifteen percent of the total amphibious fleet will always be in maintenance, only enough lift for one MAF(AE) is available from all ships—divided between the Pacific and Atlantic Fleets, with some forward-deployed at all times. Obviously, if we are required to embark a MAF(AE), we will not have sufficient ships to embark an additional MAB. The attainment of our stated lift objective is, at best, a very long-range proposition—and it is threatened by the approaching "block obsolescence" of our current amphibious ships. All but six of the current inventory of active amphibious ships are scheduled to leave the fleet within the next twenty years. Postponing their orderly replacement invites higher costs and build rates, and that, just to maintain the status quo. More critically, such delays entertain higher military risks than I consider prudent.

As a result, the Marine Corps maintains high interest in two current shipbuilding programs: USS *Whidbey Island* (LSD–41), for which the first keel was laid last August; and LHD–1, a conceptual amphibious assault ship. LSD–41, the first amphibious ship to be started in five years and the first to be funded in ten years, is designed to carry the landing craft air cushion (LCAC), as well as conventional landing craft. It represents a commitment to new technology at low risk. We need more of these ships to replace the aging well-deck ships which carry our assault craft. The LHD–1, a general purpose amphibious assault ship, is also needed to replace our aging LPH–2 Class helicopter assault ships. The LHD–1 will significantly increase the total lift capability, provide a flight deck for both helicopters and VSTOL aircraft, and offer a well-deck for both air cushion and conventional landing craft. In concept and design, it is similar to the current LHA Class ships and will benefit from much of the same technology. To help alleviate amphibious lift shortfalls, LHD–1 must enter the fleet as soon as is reasonably possible.

The Navy's LCAC program represents a conceptual and technological breakthrough in ship-to-shore movement. The keen interest the Marine Corps has in this program intensifies as the program continues to develop. The LCAC's capabilities are well known: speed up to fifty knots, sixty ton (or better) payload, extensive operation ranges, accessibility to 70 percent of the world's littorals and both across-the-beach and inland capability. No maritime nation can ignore the potential of LCAC. The Congress has strongly supported this important program. With the current contract for continued design and long-lead funds for initial production, we expect the introduction of this revolutionary craft by 1986.

Also of special interest are the Fleet Hospital programs which provide definitive care medical facilities in all major medical specialties. They are designed to provide a full range of medical services, within or near the combat zone, for direct support of Navy Fleet units and Fleet Marine Forces. These large, self-contained, portable units will give emergency life-saving care and serve to help in addressing the serious shortfalls in Navy medical support. I urgently request Congressional support for this vital Navy program.

Let me turn now to naval gunfire, a deficiency which concerns me greatly. Amphibious power projection should never be undertaken without readily available, all-weather fire support. Naval gunfire provides the primary means of that support before artillery is established ashore. Curently, our naval guns are deficient in size and number. Presently, there are no new gun or gunfire-related programs in development or production. the five-inch, semi-active laser guided projectile, in conjunction with the SEAFIRE targeting system, could alleviate some of the problem. In addition, a conceptual 155mm naval gun promises increased range and lethality as well as commonality with Army and Marine Corps ammunition. I strongly support continued exploration of the potential of these systems.

Reactivation of the *Iowa* Class battleships will reintroduce major caliber guns now missing from the Fleet. At a cost significantly lower than new construction for a lesser ship, the U.S.S. *New Jersey* will provide massive firepower capability. Her yard period is ahead of schedule and under cost. I urge that every consideration be given to reactivation of the three remaining *Iowa* Class battleships.

Finally, we must develop our mine countermeasures technology and improve our capabilities against the increasing Soviet mine threat, seaward of the high waterline to include the surf zone. The magnitude of the Soviet threat and the lack of U.S. Navy capability in the close-to-shore environment demands intensive research in this area. I fully support Navy efforts in the development of critical mine countermeasures technology.

PRE-POSITIONING

The Marine Corps' recent involvement in pre-positioning presents new challenges for the Corps. While this concept is not a substitute for our capability to conduct amphibious operations or our vital need for increased amphibious lift, it does provide significant enhancement to our strategic mobility. Two innovative programs will contribute substantially to Marine Corps rapid deployment and sustainability.

First are the Near-Term Pre-positioning Force (NTPF) and the Maritime Pre-positioning Ships (MPS) programs. Our concern for the nation's ability to move forces rapidly has been central to our planning for reaching the crisis arena expeditiously, ready and equipped to carry out our assigned mission upon arrival. For the Marine Corps, rapid deployment means readiness and on-scene presence with credible, sustainable forces. Such forces complement our amphibious assault forces in deterring conflict, or successfully concluding operations. Our maritime pre-positioning initiatives are currently tailored to support the deterrence mission within the Southwest Asia (SWA) region but, as the program develops, will be applicable to worldwide contingencies. The Military Sealift Command charters thirteen ships to support the NTPF program for the SWA-region. Of these thirteen ships, seven directly support the Marine Corps. Acquisition and conversion, or new construction, of ships for three MPS flotillas suitable to this mission is essential to the evolution and early operational capability of maritime pre-positioning.

Second, in Central Norway the Marine Corps continues to program resources to pre-position equipment, supplies and ammunition for a MAB in order to expedite NATO reinforcement. Pre-positioning will enhance our commitment to NATO and afford the National Command Authorities the option of committing Marine forces quickly.

MANPOWER

Our manpower program calls for an end strength of 194,600 by the end of fiscal year 1983, and represents a 2,500 personnel increase over the fiscal year 1982 level. This additional manpower is needed to strengthen air defense and combat service support capabilities, to support structural enhancements in both the aviation and ground elements, and to achieve higher manning levels throughout the active force structure.

Quality personnel, in sufficient numbers, are the key to success in maintaining the readiness and combat capabilities of Marine operating forces. The Marine Corps has been very successful in meeting both qualitative and quantitative manpower requirements over the past two years. Higher levels of military compensation, and additional resources that we have been able to apply, have been instrumental in improving recruiting and retention. As a result, we met our recruiting goal for fiscal year 1981, exceeded our high school graduate target of 75 percent, and reenlisted more Marines than in any previous year.

The Marine Corps' ability to deploy rapidly and accomplish its mission, wherever and whenever called, depends on quality individuals who can endure rigorous training, accept firm discipline, respond to sound leadership, and perform with intelligence and adaptability. Our quality has never been better. Fiscal year 1981 was the first year since 1975 in which we recruited personnel using correctly normed ASVAB tests. Our recruiters are doing an exceptionally fine job, particularly in view of the fact that 29 percent of the accessions in fiscal year 1980 would not have qualified in fiscal year 1981. The results of this quantum jump in quality were not totally visible until this year, since over 30 percent of our fiscal year 1981 accessions were in the Delayed Entry Program pool at the beginning of fiscal year 1981. In other words, fiscal year 1982 will be the first year in which all potential recruits will have been tested using properly normed tests. This continuing emphasis on quality has resulted in lower attrition, fewer disciplinary problems, and progressive improvements in our career force since more highly qualified individuals are eligible to reenlist and are doing so.

Our experience in efforts to reenlist well trained and highly qualified individuals who have proven themselves as quality Marines, is that quality begets quality. During fiscal year 1981, 16,129 Marines reenlisted, 2,129 over our original goal. Our

continuing emphasis on quality, the improvement in compensation, the general state of the economy, and the changing national attitude toward military service have contributed to our ability to achieve these record reenlistments. A continuing concern, however, is our ability to retain Marines who possess particular talents and skills necessary to overcome critical shortages in various specialties. With the application of additional bonus monies, added by Congress in fiscal years 1980, 1981, and 1982, and for which I again offer my appreciation, we are making progress in solving our critical skills problem. It is too early to tell what the impact of the installment payment program will be on reenlistments, but we will monitor this very closely and report the results if they are significant.

During fiscal year 1980, we initiated a program to allow individuals in overpopulated skills to train, if qualified, in an area where shortages exist, then to reenlist when qualified in the new skill. The program has proven very effective, with 1,789 Marines electing this option during fiscal year 1981. In fiscal year 1982, we have further refined our Selective Reenlistement Bonus Program by applying bonuses to military occupational specialites instead of the more general occupational fields. This allows reenlistment bonuses to be directly applied to influence qualified individuals to reenlist in specific skill areas where significant shortages exist. As a result, we have made substantial progress in both closing the gap on our career enlisted force requirements and providing higher manning levels within the operating forces.

We continue to meet our annual officer procurement requirements and the fiscal year 1983 plan calls for an increase of 348 accessions above the fiscal year 1982 level. We feel that we can accomplish this goal with little difficulty. My one concern, however, is in satisfying growing requirements for field grade officers. Additional Majors and Lieutenant Colonels are needed to provide adequate Marine Corps representation on the RDJTF staff; in various Unified and Specified commands; and within the Department of defense, Department of the Navy, and the Joint Staff. This requirement cannot be met without drawing down on our operating forces. It has become obvious that the field grade officer ceilings imposed by the Defense Officer Personnel Management Act are inadequate to our needs. Grade substitution in the operating forces has become the rule rather than the exception. My staff will recommend proposed changes to the grade table which will be necessary to better satisfy our overall requirements.

Civilian personnel represent a major element of our total manpower requirements. Our fiscal year 1983 request for 20,637, and increase of 491 over the fiscal year 1982 authorization, satisfies minimal requirements. Although austere, this request provides for some growth necessary to support operational programs, such as Maritime Pre-positioning, and to release Marines from duties that are best performed by civilians.

As previously mentioned, we have been extremely successful in recruiting quality Marines in the past few years. This has only been done by assigning our very best Marines to recruiting duty, which remains the most demanding and difficult assignment that a Marine can have. I am committed to this effort and intend to continue my policy of assigning only the best to recruiting duty. I intend to be similarly selective in assigning instructors to the recruit depots and other training establishments. I am convinced that this near-term investment in recruiting and training will result in long-term benefits to the Marine Corps. The number of Marines assigned recruiter and instructor duties meets the minimum requirements to accomplish these important tasks, and I urge your support for the recruiting and training overhead levels requested.

Military compensation is now at, or near, competitive levels with the private sector, and I want to extend my appreciation to each member of the committee for your efforts in this regard. I now ask for your continued support in maintaining that level of relative parity which is so important to our ability to attract and retain quality personnel. I also ask you to support the various programs that impact on the quality of life enjoyed by the Marine and his family, and which have a major influence on reenlistment decisions. Areas that require particular attention include: fair reimbursement for the costs incurred by the individual for service-directed permanent change of station moves; medical benefits for dependents; appropriated-fund support for Morale, Welfare, and Recreation activities and facilities; educational benefits; and military construction funding for housing (accompanied and unaccompanied) and dining facilities.

Another area of particular concern to me is the frequent family separations that we require of Marines in order to maintain a forward deployed posture in the Western Pacific. Our presence in Japan is necessary, but I am convinced it can be maintained without adding to the sacrifices we ask our career Marines to make. Conse-

quently, I am committed to decreasing the number of unaccompanied tours on Okinawa and at Iwakuni. Over the next few years, I intend to permit career Marines in Japan, excepting those in specially designated ground and aviation combat units that deploy on a regular basis from their home stations, to elect accompanied tours. We will progress deliberately, pacing the transition in particular to available housing. I am confident that the impact of this decision on Marine families and on the retention of quality career Marines will benefit generations of Marines to come. The stability achieved by having more Marines on longer, accompanied tours, rather than one year unaccompanied tours, will translate directly into improved readiness through decreased personnel turbulence and increased morale.

I also share your concern with regard to the drug problem that we are experiencing in the nation, and its impact on the military. As many of you are aware, I have launched a determined, concentrated campaign to eliminate the use of illegal drugs in the Corps. My policy is plain and simple: the distribution, possession or use of illegal drugs is not tolerated in the United States Marine Corps. The welfare of the men and women in my charge is a deep commitment embedded from my earliest days as a Marine, and I am totally committed to ridding the Corps of this threat to its well-being. I am confident that over the next six months the leaders and individual Marines will make dramatic progress toward the elimination of this problem. I am convinced that this policy will have a positive effect on attracting and retaining quality Marines. In the end, we will be deserving of the kind of belief and respect that I think the American people have in us. They will be proud to recommend their sons and daughters to us, for they will know that Marines take care of their own.

MARINE CORPS RESERVE

The Marine Corps relies heavily on its Reserve strength. Representing one-third of the available manpower and 25 percent of the structure, our Reserve is an essential component of the total Marine Corps combat capability.

Overall, the posture of the Reserve is solid, and we continue to see steady progress. By the end of fiscal year 1981, Selected Reserve end strength stood at 37,049, 10 percent over plan. Unit strength increased by 1,800. First term and career retention was up 5 percent, and the percentage of high school graduates climbed to 79 percent.

Readiness remains stable. Almost 15,000 reservists participated in field exercises and 215 units conducted weekend-away training. Nearly 1,600 Individual Ready Reservists, officers and enlisted, trained for mobilization assignments alongside their active-duty counterparts. Of the units tested, 84 percent were deployment ready, and 55 percent were, by active standards, fully combat ready.

On the less positive side, approximately 20 percent of the ground units are degraded for grade and skill shortages, reflecting a 10 percent decline in prior service over the past four years, and a non-prior service attrition of 12 percent. Aviation readiness continues to be affected by aircraft shortages, principally in KC-130 refuelers, AH-1 helicopters, and the near obsolescence of the entire fleet. With the exception of the UH-1N helicopters, all Reserve aircraft are Vietnam or pre-Vietnam vintage and face block obsolescence during 1987-95.

Logistics readiness is still a major area of concern with only our Nuclear, Biological and Chemical capability showing significant improvement. Major deficiencies exist in communications-electronics, engineer, motor transport, ordnance and supply support.

It is clear that the pace needs to be accelerated if the Reserve is to be fully capable of satisfying a widening range of contingency missions within increasingly stringent response parameters. We intend to meet this challenge starting in fiscal year 1982, thanks to the support of Congress.

To ameliorate the skill shortage and achieve the goal of 100 percent wartime strength by 1986, a vigorous attrition management program will be instituted, bonus utilization maximized, recruit tracking improved, retraining opportunities expanded and a comprehensive prior service recruiting program inaugurated.

To improve readiness, the unit exercise program will be expanded. More mission-oriented training will be conducted away from home centers. A greater number of units will undergo readiness testing. Annual training will be oriented toward integration with the active forces on a year round basis.

To improve response, the Selected Reserve structure will be reorganized and modernized. The ground forces will be streamlined by reducing infantry strength while increasing firepower and reinforcing elements. Sustainability and surge capability enhancements are planned through a major expansion in manned combat service

support and medical units. In the aviation component, the attack and fighter force is programmed for upgrading in the mid-80's by replacement with newer models transferred from the active force. Funds permitting, additional KC-130, AH-1, OV-10 and CH-53 aircraft will be introduced over a six-year period. Overcoming block obsolescence and incompatibility with the active force will, however, entail new aircraft procurement for the Reserve such as the F-18 and AV-8B. To ensure sufficient pretrained individual manpower is available to meet time-phased wartime requirements, a major effort is underway which includes: a threefold expansion in the number of individuals preassigned to critical billets; a 31 percent increase in mobilization training; and the establishment of a management structure capable of administering, training, mobilizing and discharging individual reservists.

To sustain these aggressive modernization, expansion and mobilization readiness programs, greater emphasis on management and support will be needed. Full-time support personnel, regular and reserve, must be added in adequate numbers to assist in organizing, recruiting, training and administrating. New automated management systems are required to replace antiquated personnel and pay procedures and to place the Reserve on a par with the active force in administration, supply accounting, training and maintenance management. And finally, there will be a pressing need to replace, renovate or upgrade nearly eighty training centers in order to provide acceptable training and habitability standards for our reservists.

OPERATIONAL ACCOMPLISHMENTS

Readiness to respond to all assigned missions remains the top priority for Marine units. All forward deployed MAGIFs are maintained in a fully combat ready status.

The Marine Corps is expanding and refining the Marine Corps Combat Readiness Evaluation System for evaluating objectively the combat readiness of units and their capability to accomplish assigned missions. All FMF units, Active and Reserve, are evaluated regularly. A secondary benefit of the system is that it provides collective training standards.

A key element in the readiness equation is training. Our training standards remain uncompromised, and our individual Marines and combat units would acquit themselves well if required to fight today. Marine Corps training is designed to prepare our Marines and units, Active and Reserve, for combat. As such, our training remains performance and mission oriented, realistic and innovative.

Marine units continue to emphasize training for amphibious landings and subsequent combat operations ashore. At the Marine Corps Air-Ground Combat Center, combined arms exercises integrate live fire and maneuver with chemical and electronic warfare where possible to provide the realistic training required to produce cohesive and potent air-ground combat power.

The well-trained individual Marine remains the keystone of our success in battle. For this reason we continually strive to improve the quality of that training. The training of a Marine begins at the recruit depot. Our proven recruit training program remains demanding and challenging, designed to imbue in the new recruit those unique qualities that identify a Marine. This training remains our most valuable asset and continues to have my personal attention in all respects.

The Marine Corps has adopted Instructional Systems Development as its training process, thereby giving us the ability to better analyze requirements, develop and support programs, and quantify the results of our training. The recent establishment of an Individual Training Standards (ITS) system and a core curriculum for a Noncommissioned Officer Educational System (NCOES) are excellent examples of ongoing programs designed to improve the quality of our individual training. The NCOES is specifically designed to "train the trainer", the backbone of our Corps, while ITS provides uniform training standards for specific occupational fields. Both programs permit us to better define our training priorities and to ensure uniformly high-quality training throughout the Marine Corps.

In order to adapt to changing requirements and available support, Marine Corps training continues to be innovative. The planned introduction of a series of manual war games designed to support training from the squad to the MAF level will provide a cost effective means for training combat leaders in warfighting skills. The expansion of the Marine Corps Mountain Warfare Training Center will improve our ability to train in the unique tactics and skills required for both cold weather and mountain warfare. The development of a field firing course for riflemen and implementation of the Enlisted Aviation Maintenance Trainee Management System are examples of innovations that span the training requirements from basic combat marksmanship to the complex skills of aviation maintenance. Our training goal will

continue to be the development of professional, mission capable, combat ready forces prepared to respond whenever and wherever needed.

The III Marine Amphibious Force, forward deployed in Japan, provides presence in the Far East and a rapid reinforcement/reaction capability for Southwest Asia. III MAF continuously forward deploys a MAU afloat in the Western Pacific/Indian Ocean. The NTPF, with 7th MAB equipment embarked, is strategically staged at Diego Garcia to augment our mobility capability in the Southwest Asia region. II MAF, located on the East Coast, continuously forward deployes a MAU to the Mediterranean Sea/Indian Ocean and annually deploys a MAU to Norway for training and joint/combined exercises as well as conducting routine MAU deployments in the Caribbean Sea. I MAF, located on the West Coast, is tasked with the responsibility for developing plans for deployment and employment of Marine forces for Southwest Asia. Additionally, I MAF, along with II MAF, provides combat elements for III MAF on a rotating basis for both deployed MAUs and Japan-bound forces through Unit Deployment.

Naval amphibious task forces have recently exercised in a number of Mediterranean countries; in Norway; throughout the Pacific Ocean area from Korea to Australia; in the Caribbean Sea; and with our friends in South America. This fall, Marines landed in Oman during Exercise Bright Star 82, which demonstrated the response capability of amphibious forces in Southwest Asia. These exercises amply underscore the inherent flexibility and capability of Marine forces to operate in various environments; jungle, desert, mountain, and under extreme weather conditions. Marines have also participated in a variety of humanitarian assistance projects that range from providing disaster relief to assisting in handling Cuban refugees in Florida (figure 6 refers).

LOCATIONS OF EXERCISES-OPERATIONS CONDUCTED BY USMC DEPLOYED FORCES

Figure 6

FINANCIAL RESOURCE MANAGEMENT

The financial resources required to execute the programs I have just described are displayed by appropriation in table I. For comparison, both our fiscal year 1982 and fiscal year 1983 budgets are presented (see table I next page).

TABLE I

[Dollars in millions]

Appropriation	Fiscal year—	
	1982	1983
Military personnel, Marine Corps	$2,817.7	$3,276.1
Reserve personnel, Marine Corps	141.5	165.9
Operation and maintenance, Marine Corps	1,204.0	1,481.8
Operation and maintenance, Marine Corps Reserve	40.3	48.4
Procurement, Marine Corps	1,731.5	2,300.7
Marine Corps Stock Fund	13.3	11.8

The funding requested for fiscal year 1983 will support an end strength of 194,600 active duty Marines and provide funds for an increase in the average strength of the Selected Marine Corps Reserve. Additionally, it will improve the readiness of our force by funding additional training exercises and operations, by replacing obsolete equipment, and by modernizing our weapons systems.

Significant increases are included in the operations budget for the purchase of materiel and equipment for pre-positioning at land bases in NATO and on dedicated shipping as part of the MPS program; initial issue expense items; support for new equipment entering the inventory; cold weather clothing; and depot level repair to include elimination of the secondary reparables backlog. There is also a significant increase attributable to price growth.

The procurement request is a continuance of our fiscal year 1982 budget request. It is directed at improving readiness and sustainability for combat, reducing deficiencies caused by funding constraints from previous years and solidifying our position for a much needed MPS program. I have already discussed specific improvements which will be recognizable throughout the request. Included are the close combat firepower and anti-armor capability increases in both quality and quantity. Our fire support systems will realize improvements in accuracy and density of weapons. Ground combat mobility; anti-air warfare capability; close air support; tactical command, control and communications; land combat support and combat service support are also improved. Two major new procurement programs include the High Mobility Multi-Purpose Wheeled Vehicle and the 155mm Copperhead artillery round.

The stock fund request provides for procurement of Pre-positioned War Reserve stocks for secondary type items required to meet prescribed inventory objectives and includes support for MPS and NATO area land based prepositioning.

The Marine Corps' fiscal years 1983 and 1984 authorization requests are highlighted in table II.

TABLE II

[Manpower-actuals; dollars in millions]

Category	Fiscal year—	
	1983	1984
Active duty end strength	$154,600	$196,375
Selected Reserve average strength	38,300	39,100
Civilian personnel end strength (USMC portion of DON request)	[1] 20,637	20,938
Average military student training load, active	20,340	20,190
Average military student training load, reserve	2,971	2,988
Procurement requiring authorization	2,300.7	1,987.6
Operation and maintenance, marine corps [2]	1,481.8	1,524.8
Operation and maintenance Marine Corps Reserve [2]	48.4	48.4

[1] Includes 18,925 O&MMC, 211 O&MMCR and 1501 MCIF.

[2] Includes funds to support the number of training days for the combat arms battalions and numbers of vehicle overhauls.

CONCLUSION

Vital to the growth and protection of this nation's interests, and to world peace, is the establishment of unquestioned maritime superiority, at the times and places of our choosing. The Marine Corps is and will continue to be an integral and essential component in the implementation of the maritime strategy. We stand ready now, as always, to provide our unique capabilities in meeting the challenges of tomorrow. Continued Congressional support will provide the means for the development and improvement of those capabilities. You may be assured that we will make every endeaver to capitalize on the support and continue to strive for excellence.

Military excellence continues as the hallmark of your Corps of Marine. The foundation of that excellence, I am proud to say, is the individual Marine. Marines are the intruments with which we execute our unique capabilities. As such, these young Americans are the focal point of our efforts—encompassing training, equipment, welfare and family.

My personal observations of your Marines convince me that they are as tough and as ready as United States Marines have ever been. They accept their heritage and strive to provide a legacy for those who will follow. Their dedication, professionalism and enthusiasm continue undiminished. They are now, and will continue to be, willing and able to deal with the challenges they face.

These young men and women of whom I have spoken, and with whom I am honored to serve, understand the meaning of their service to this nation. I find that refreshing and a source of great personal pride. In the past, some sectors of our society would have scoffed at pride in serving one's country. I trust that is behind us, and applaud the Congress in its efforts to revitalize the public perception of the value and honor of serving this great nation. A public perspective that recognizes and fosters those values is the true key to our security and, indeed, our future prosperity and success as a nation.

That, Mr. Chairman, completes my statment. I am prepared to entertain your questions.

Chairman TOWER. Thank you, General Barrow. I appreciate your reference to the fact that Houston, Tex., which has the lowest rate of unemployment of any great industrial city in the country, is also going gangbusters on Marine recruiting. That says something about the character of the people in that great city.

DEFENSE FREEZE

Mr. Secretary, there has been a package proposed by one of my colleagues that has received favorable comment by my other colleagues which would call for freezing of defense spending at fiscal 1982 levels.

What would this do to the Navy and the Marines in terms of efficient and economic procurement, ultimate cost, size of the fleet, and naval capability? What would you be prepared to sacrifice? What might be impaired? Will you comment on what the result will be.

Secretary LEHMAN. That is easy. It would be an unmitigated disaster, Mr. Chairman, if that kind of reduction or anything approaching that order of magnitude were instituted.

We have been able to take a far tougher attitude in the Navy with our suppliers and our contractors and at the same time draw into our supplier base a great many efficient smaller vendors and suppliers that have dropped out as the market was shrinking.

Last year, 1982, our budget, in outlays, was $56 billion. To go back to that level would absolutely dissipate our program. We would have to renegotiate all of the contracts, a great many of which were accomplished over the last year, to the great benefit of the taxpayer, I might say.

You have in this committee followed closely our negotitions with our principal submarine builders, Newport News and Electric Boat. We have been able to achieve new contracts with both on a far more businesslike basis while in my judgment, eliminating the most likely causes of any overruns. We are requiring them to carry the principal burden of risk for overruns in exchange for providing them incentives to come in under cost and ahead of schedule.

Specifically, on the F-18 we negotiated a contract last summer that was some $300,000 per aircraft below the price that was reported to Congress in the selected acquisition reports. Why? Because we have an expanding base. We have a buyer's market, if you will.

To have all of our initiatives suddenly destroyed by a sudden downturn would completely eliminate the possibility, in my judgment, of putting our procurement and our development back on a businesslike basis for the remainder of this century. We are simply not going to get industry to take those risks and make those commitments if now, after all the Reagan initiatives, it suddenly all stops.

I would like to submit for the record, Mr. Chairman, just as one example a list of capital investments and productivity improvements, amounting to many hundreds of millions of dollars, that our suppliers, particularly in the shipbuilding and aircraft industry, have committed out of their own funds, at our initiative, to modernize their plant, to make their production most efficient, to bring unit costs down. There have been dramatic savings in unit costs, just in the past 12 months, which would all go out the window if our program were to be significantly altered.

If you want to bring monopoly into more and more of our procurement business, eliminate and drive out the smaller businessman and the productive smaller craftsmen around the country, this is the way to do it, to take a major reduction approach.

[Additional information follows:]

CONTRACTOR INVESTMENT INITIATIVES

The Navy is working with major contractors in the private sector, particularly in the shipbuilding and aerospace industries, to provide for a "reindustrialization" to ensure the capacity is available for anticipated work. The following are examples of companies and the types of capital investments and productivity improvements they are making to provide increased capacity:

SHIPBUILDING INDUSTRY

Todd Pacific Shipyards, San Pedro, CA

Major waterfront upgrading plan initiated to include a syncrolift drydock.
Computer Aided Design/Computer Aided Manufacture (CAD/CAM) systems have been added.
Robotics welding capability added to facility.
Renovation of management information system initiated.

Newport News Shipbuilding Drydock Co., Newport News, VA

CAD/CAM system added.
Company sponsored advanced welding technology R&D program on-going.
Upgrading/modernization of existing drydock.
Advanced submarine manufacturing facility in planning.
Extensive technology modernization of North Yard in anticipation of additional CVN requirements and to provide for accelerated delivery schedules.

Avondale Shipyards, New Orleans, LA

Automated pipe shop added.
Zone outfitting and group technology capabilities developed.
Multiple general shipyard improvements added.

Bath Iron Works, Bath, ME

Opening new facility in Portland, Maine including 81,000 ton floating drydock.
Major addition to pre-outfitting/assembly and plate panel facilities.
Robotic shape processing facility added.
Group technology and zone outfitting capabilities developed.
CAD/CAM automated sheet metal shop added.

Peterson Shipbuilders, Sturgeon Bay, WI

Technology upgrades to support additional MCM and ARS ships.

Todd Pacific Shipyards, Seattle, WA

40,000 ton drydock.
150 ton Gantry Crane.
1000 foot deep draft pier.
Computerized master scheduling. Modernization/renovation of numerous facilities.

Lockheed Shipbuilding, Seattle, WA

Extensive computerization of processes.
Numerically controlled plasma burners.
Rebuilding of shipways and craneways.
Robotics.

Northwest Marine, Portland, OR

Portland Repair Yard 80,000 ton floating drydock.
New lathe and boring equipment.
Extensive support facilities added/upgraded.

Metro Machine, Norfolk, VA

New 13,000 ton floating drydock.

Atkinson Marine, San Diego, CA

New repair/overhaul site completed.
In addition, the Navy is introducing the use of commercialized procedures for obtaining auxiliary support ships such as the T-AO which should increase the industrial base by involving additional commercial builders in Navy work.

AEROSPACE/ELECTRONICS INDUSTRY

Hughes Aircraft Co., Los Angeles, CA

Manufacturing technology program—modernization on-going.
Advanced factory design effort undertaken.
Acceleration of CAD/CAM.

Northrop Hawthorne, CA

Three-phase manufacturing technology/factory modernization program undertaken.
Use of Integrated Computer-Aided Manufacturing techniques (ICAM).
Identification of candidate areas on F/A-184 programs for productivity improvements.

William Research Corp., Walled Lake, MI

Identification of candidate areas for cruise missile F-107 engine productivity improvements.
Factory/technology modernization programs on-going.
Program to increase use of robotics and automated inspection initiated.

Intercontinental Manufacturing Co., Garland, TX

Facility modernization undertaken for production of SM-2 missile parts.

FMC Northern Ordnance, Minneapolis, MN

Laser welding facility added for missile launcher and gun mount production capability.

The following additional companies have on-going technology modernization programs within their facilities to support Navy programs for various major air frame and strategic missle programs:

General Electric—multiple locations.
McDonnell Douglas, St. Louis, MO.
Martin Marietta, Orlando, FL, and Denver, CO.
Grumman Corporation, Bethpage, NY.

The Navy has also initiated productivity improvements within its Government-owned and operated facilities (GOGO) through the Industrial Fund Capitalization Program and has significantly increased the current fiscal year 1982 budget to $60M for application to industrial shore establishment productivity improvements. The Navy will continue to explore this important program and work vigorously towards a more productive industrial base.

NAVY SHIPBUILDING ACCOUNT

Chairman TOWER. Mr. Secretary, a related question.

The shipbuilding account is one of the largest procurement accounts. How much outlay savings could we realize in fiscal year 1983 if we cut $10 billion of total obligational authority across the board in the Navy shipbuilding account?

Secretary LEHMAN. If you cancel the two carriers you might save as much as 5 percent of that figure in outlays in fiscal year 1983. The SCN account is far and away the most effective front-end investment to save the taxpayers enormous amounts of money over the program that can be achieved.

The corollary is that there is at best a 20-to-1 ratio in outlay savings in the SCN account. The SCN account pays out, as you know, somewhere between 5 and 8 years. It starts at 3 percent for entirely new programs, ranges up to a high of maybe 18 percent outlays in some programs at the peak year and then tails back down as the program completes.

There is no way that the SCN program can provide any significant measurable support to the budget deficit problem that is the subject of such debate here in Congress.

600-SHIP NAVY

Chairman TOWER. Mr. Secretary, I support your objective on rebuilding the Navy toward a goal of 600 ships. However, how are we going to achieve that size of a Navy in the face of some of the criticism that says it will be unaffordable and in what timeframe do you expect the goal to be met?

Secretary LEHMAN. We are confident that the present program, Mr. Chairman, will bring us to the 600-ship mark by 1989. The goal is not to achieve 600 ships. The goal is to have sufficient force to meet our minimum national commitments. To meet that goal will take the presence of 15 battle groups available to execute a strategy against a global threat and it is from that coupled with a balanced fleet that the number 600 is derived.

In my judgment we have great confidence that we will execute our plan in the course that we have laid out. Indeed we are not saying that every single program will have exactly the same number of mix of ships, but the overall force, based on 15 battle groups, will be afforded in the budget that we have put forward.

The confidence I have is that nearly all of our major shipbuilding programs and most of our minor ship programs are on target and are coming in under cost.

As you know, we have renegotiated our contract for the *Teddy Roosevelt* CVN–71, with Newport News, and we have achieved a new 14-month earlier delivery date with delivery in 1986 instead of 1988, and at a cost savings to the taxpayer of about $100 million. This is accomplished by providing Newport News with a much more rational basis on which to plan, though an up-front incentive of $21 million, for delivering on that date. That is sound, solid business sense that is saving the taxpayers a lot of money.

The continued application of that kind of discipline results in increased efficiencies such as we are now seeing in our new contracts. One example, in NAVSEA, is where we had 17 bidders on a contract for an item where we never had more than 3 or 4 before. We are confident that we will see costs continuing to go down and achieve that 600-ship procurement by 1989.

Chairman TOWER. Thank you, Mr. Secretary.

I have a number of questions I would like to have answered in a timely fashion, let us say by the end of the week, that I would like to submit to you for the record.

Senator Stennis?

Senator STENNIS. Mr. Chairman, I came here as a matter of deference to the committee and the witnesses, too, for the military portion of the budget.

The Secretary of the Treasury is testifying in the Appropriations Committee, and I am also interested in hearing his testimony.

I am interested in this program. If anyone can build these ships, the Secretary of the Navy can do it. It is a mighty serious business for us to come out here with this deficit of $91.5 billion.

BALANCED BUDGET

I have been out among the people. They are the experts. They have been told how this budget has to be balanced or nearly balanced in a few years. Mr. Reagan has sold them on that, he has done a good job. I believe we are going to have to scrounge around here and reduce that deficit some, if at all possible, and everything needs to be brought under review. I want to withhold judgment here.

I think the Department of Defense should take a look at these military increases along with other increases and see if they can't be reduced some.

I may have something later, but I must go back over to the appropriations hearing, Mr. Chairman.

Chairman TOWER. Senator Warner?

Senator WARNER. Thank you, Mr. Chairman.

Mr. Chairman, this Navy-Marine Corps team leadership has been together for 1 year now. I certainly share the sentiments of my colleagues on this committee and others that it is one of the finest in the recent history of the United States. However, it puts our newest trustees of the largest part of the defense budget under a special obligation for the most careful management efficiency possible because as each of you know from your hearings in the Depart-

ment of Defense one military department suddenly forges ahead in terms of receiving the larger allocation of funding, there is a certain amount of "competition," and I use that word in quotations, with the other military departments.

Nevertheless, I am confident that you can handle it.

Mr. Secretary, when Chairman Tower and I went up to greet you we saw your hand thrust in your coat. I am glad it was an injury and not a Napoleonic gesture. [Laughter.]

MARITIME SUPREMACY

Senator WARNER. What makes you think that the Soviets are going to stand still and let the United States achieve maritime supremacy? You will have the initiative, the curve toward maritime supremacy. You and I know that will have to be carried on by successors in your office.

Secretary LEHMAN. Senator, there is a lot of distortion I think and some commentaries in the press about what we are talking about. We are not talking about measuring numbers.

The Soviet fleet has been larger than the U.S. fleet for virtually the whole history of the United States, for at least 200 years. We don't propose to change the numerical balance that dramatically.

Senator WARNER. You look at the history. There were times in the history when the Soviets were almost zero.

Secretary LEHMAN. You can argue about the size of the ships they had in their coastal defense force and so forth, but they have had close to 1,700 ships if you count their coastal forces for a good long time.

Be that as it may, we are not trying to match them in numbers. The measure of superiority is whether we can carry out our vital maritime tasks, which is to prevail against the Soviet threat in only our vital areas. We can do that in a properly balanced 600-ship Navy even if they have an 1,800- or 1,400-ship Navy because it is not a function of stacking up statistical measures and seeing who has the most.

Senator WARNER. I know that well, I know the numbers as well as you do.

My point is that they will recognize precisely what you are doing and, if necessary, reorganize their construction program.

Secretary LEHMAN. It is in the large scale irrelevant what they do because they cannot escape from the constraints that geography has put on their maritime strategy. They cannot escape from the northern geography of their fleet. They can't escape from the northern cape and the Dardanelles.

Senator WARNER. That geography was in place 36 months ago when your colleague on your right came in to tell us we were in a steady decline.

SOVIET PACIFIC FLEET

Secretary LEHMAN. That is right. Obviously if you don't have sufficient forces you cannot take advantage of the benefits of geography and the vulnerability the geography places on the Soviets because one of the biggest changes, in my judgment, in the military

balance in the last 20 years has been the establishment of a permanent, offensively capable Soviet fleet in the Pacific.

For the first time now there is a permanent, offensively postured capability of some 130 ships in the Western Pacific that were not there in that way ever before, operating, as the CNO has said, out of forward bases in Cam Ranh Bay and Da Nang among others. That means that we no longer have the luxury of concentrating our forces by swinging the 7th Fleet assets out of the Pacific to use them elsewhere. If we did swing out of the Pacific we would turn Japan, Korea, Australia, New Zealand, et cetera, over to Soviet control in time of conflict.

SOVIET SHIP CONSTRUCTION PROGRAM

Senator WARNER. Let me restate the question.

I understand the significance of geography as it relates to the Soviets very well. My point is, won't they reorder their priorities internally in their own construction program?

As you and I know, they have a somewhat more active industrial base now in shipbuilding than we have. Could they not begin to accelerate their own program?

Secretary LEHMAN. Excellent point.

Senator WARNER. Let me finish one other point.

One of the dramatic remarks made by Harold Brown relates to strategic forces. "When we build they build. When we stop they build."

Isn't that quote applicable to their Navy?

Secretary LEHMAN. It is applicable. I would be concerned if that is the dynamic which takes place in the Soviet power structure. But what could be more stabilizing than to force them to reorder their resources away from an offensive, nuclear, strategic first-strike capability, and into building more naval ships to take resources away from supporting very expensive operations in Cuba and throughout the Third World and to put those resources in the maritime field? In my judgment it would be beneficial to lessen the destabilizing threat on Central Europe, and to divert them to reallocate resources away from the overbearing force they have in Central Europe and into the maritime field. The marginal increase in the threat to us from such a reallocation, is small if we have a sufficiently sized force.

Let them build as many as they want to as long as we have the capability to move to our objectives early in the conflict.

Senator WARNER. Admiral Hayward, it was 10 years ago this spring that you and I went to the Soviet Union in connection with certain responsibilities. At that time we had the opportunity to study and meet with your counterparts in the Soviet Union.

SOVIET NAVAL STRATEGY

In that decade that has elapsed since our visit have you seen a dramatic change in the strategy of the Soviet Navy?

Admiral HAYWARD. There certainly has been a change as their capability was realized. The decisions had to have been made at the time we were there, or even 5 years before. That resulted in the Soviet Navy as we see it today. There is no question that their

strategy has moved away from a coastal defense orientation to one of global perspective and we observe it continually year in and year out as they seek to establish firm commitments for other nations in Africa, in the Caribbean, in the Southeast Asian area as well as Southwest Asia. Their strategy is obviously leaning toward using naval power to influence events worldwide both in peace and war.

Senator WARNER. By way of projection?

Admiral HAYWARD. Moving more and more by way of projection.

Senator WARNER. Then I turn to General Barrow.

General Barrow, you gave very good testimony today outlining the essentiality of a Marine Corps to effect precisely what Admiral Hayward said, namely a projection type Navy.

It seems to me with respect to the Soviet Naval Infantry that the Soviet Navy has remained basically static in the past decade. I have not seen the emphasis on that commensurate with the build-up of the Soviet Navy.

General BARROW. They have not remained totally static.

Senator WARNER. Not totally, but the dramatic growth of the Navy as compared with their——

General BARROW. I agree there are several factors here. They have made improvements in their Soviet Naval Infantry, in their amphibious lift capability, but the important thing is that they have made mischief around the world primarily through the use of surrogates and not doing things themselves.

I have no belief that, other than on the flanks of NATO, we would ever necessarily fight Soviet forces per se, but rather Soviet image forces in their various surrogates, proxies, and puppets that they have here and there. That is the way they have reached out globally through their advisers and heavy doses of military aid and other things of that sort, protected, I might say, by the Navy to a large extent.

SOVIET AMPHIBIOUS LIFT CAPABILITY

Admiral HAYWARD. Could I add one thought that somewhat contests the thought that their amphibious forces have not kept pace?

I would like to have somebody, come over, to provide you a briefing on the major Soviet activities that took place during the build-up of the Polish crisis in the Baltic that demonstrated existing Soviet amphibious lift capability, a major modernization from what they had 10 years ago.

They are constructing an amphibious lift ship. They have their own LCAC and several of them whereas we have yet to get our first. They have turned many of their merchant marine assets into amphibious-capable units. Many of their new merchant marine ships are very useful for amphibious operations. One should not assume that they are not thinking——

Senator WARNER. I misphrased the question.

I was asking has it remained static? I know of what you speak.

Chairman TOWER. Senator Cohen?

Senator COHEN. Thank you, Mr. Chairman.

Admiral Hayward and General Barrow, I would like to say that I agree with your statement about the high level of morale and en-

thusiasm in the Navy and Marine Corps. I just returned from visiting the U.S.S. *Kennedy* in the Indian Ocean, and I can tell you that everybody on board was high spirited. They were enthusiastic, they were confident. I watched a full night operation and they were extremely professional. I can't but extend the greatest commendation to both of you for what I think is the kind of leadership that has turned that morale problem around significantly in the past 3 or 4 years.

There were 30 young men on board from Maine, the first time all of them ever had gotten together during their service in one spot to meet me, so I had a solitary impact on my constituents from the State of Maine. They had not met each other on that ship before.

I must speculate 30 people out of all the men on board is probably a higher percentage than those from Houston, but I did not have a chance to check that out.

Chairman TOWER. Will you provide the figures on that for the record?

Senator COHEN. One of them did confide, "Don't let them fool you. We have been working to clean up this ship for 3 days when they found out you were coming." Aside from that the morale was high.

We also had the experience of being not buzzed, but flown over by Iranian P-3's that we sold to Iran some time ago, which now have a different mission. They were 500 feet off the deck of the U.S.S. *Kennedy*. Of course, they were escorted by the F-14's during the entire time, but that is a very regular occurrence in that part of the world.

Part of the reason I went on the trip was to make an evaluation of how we were moving in the direction of the Rapid Deployment Force and what the perspective was of those countries that would be most affected by it.

I must say from Egypt to Oman and Bahrain their view is that they would like to see a greater presence, one that is over the horizon, one that they can feel and not necessarily see. I think that comports entirely with the direction we are moving as far as enhancing the Navy and Marine Corps capability, the Rapid Deployment Force.

OPERATION BRIGHT STAR

I would be interested in getting your reactions to the extent you can talk about them, about the Bright Star Operation which we recently completed in that part of the world in terms of the positive aspects, General Barrow, from your perspective, and maybe some of the negatives as well.

I got the impression, for example, from those people who live in that part of the world that it was a successful exercise, but it was also a very convenient time of the year. We haven't really experienced an operation during the summer months when the heat gets to about 120 degrees and temperatures are 95 in the shade.

CHEMICAL WARFARE

I know in your prepared statement, General, you spoke about chemical warfare. If you combine the heat conditions with chemi-

cal warfare, do we have the capability at this point in time to have an effective fighting force in the Middle East?

General BARROW. I think we do. I think we have to pace ourselves carefully. I am always mindful that such conditions don't visit themselves on only one side. The opposition faces the same problems, whether it is hot or cold or any of the extremes of climate.

Our chemical NBC defense I would characterize as marginal, but improving. That is all part of this same budget we have before you to make it what it should be.

The word you use about the cautious attitude of the people in that part of the world was manifest in the situation we found when we landed at Oman, the first time any Americans had ever done that. We had very careful constraints placed on what it was to do, the time allowed to do it, and the number of people to be put ashore.

The good that came out of it was, apparently, they were all enormously impressed with the capability that was there and the way it performed in terms of the limitations.

Senator COHEN. Major Koch, who is aspiring to higher office right now, has a famous saying "How am I doing?"

I was going to ask you that with respect to the battleships. You made a pledge that was signed in blood about those battleships coming out on time and hopefully under the budget mark we had last year. How are we doing?

Secretary LEHMAN. I am relieved and pleased to report, Senator, that the news is good. We are basically ahead of schedule. It is a very tight schedule. We are right on target cost. We think we are past the stage of risk of any unforeseen shortcomings in the engineering and other tasks that have to be done to the ship itself and its systems. We are quite confident that we will be able to deliver by next January at the appointed time and at the appointed cost. So far everything is on track.

PETTY OFFICER SHORT FALL

Senator COHEN. Admiral Hayward, last year when you came before the committee you indicated you had a petty officer shortfall of 20,000. Since that time we have seen some significant raises in pay and other benefits.

What is the shortfall this year and what is the trend?

Admiral HAYWARD. The shortfall has not changed in the aggregate over the past 5 years, however, it will gradually improve over the next 4 to 5 years.

The reason that it does not change more rapidly is that fortuitously we are building more ships so that the total Navy size in the past year went up by something close to 21 or 22 ships. I will have to correct that for the record.

[The informations follows:]

The growth in number of ships from 1981 to 1982 was 19.

We also have a large number of precommissioning crews that we are manning for the ongoing shipbuilding program.

The retention figures that we have now, if continued, and there is no reason why they will not continue as long as the Congress

and administration stay behind the military people as they currently are, will cause us to improve steadily and get the situation completely under control by 1986 or 1987. That would be the perfectly manned Navy.

We have not seen a perfectly manned Navy in a long, long time. So, of the 20,000 shortfall, if we in fact were only 8,000 short, you probably would not hear us talking about it too much because it would be a pretty well-balanced force and have a lot of quality in it.

What really is happening afloat is that the impact of sea pay is very constructive. There has been a qualitative improvement afloat in ship, aviation squadrons, and overseas units, which is just exactly what we want sea pay to accomplish.

Back in the United States in the shore establishments, bases, schools, and the like, there is a very gradual change in the qualitative improvement. It is not nearly as dramatic as it is afloat. But that is quite understandable and was expected. We feel very good about it.

Senator COHEN. This past week there was a report which was released about the Pentagon having conducted a rather extensive 12,000-person survey. It came to controversial conclusions about the type of individual now filling our Armed Services. The results show that servicewide the recruits were about average. It included white, black, and Hispanic.

Have you seen the test results, and what is the situation with the Navy and the Marine Corps?

Admiral HAYWARD. I won't try to address that particular report until my people have had an opportunity to take it apart, analyze it, and tell me exactly how we assess those results vis-a-vis the average American. However, if you compare the quality of our own people today with 5 years ago, there is a gradual improvement in quality. Whether that will be sustainable once the economy really gets moving again and industry competes heavily for people in the recruiting age bracket will be something for us to watch very carefully.

MENTAL CATEGORY GROUPS

What we have observed over the last 5 or 6 years is that in mental group one, your top talent, the high school graduate who has college experience or certainly college potential there has been a steady decline in the input.

In the mental group two category there has been an increase in input. If you look at categories one and two combined we have been getting a relatively constant percentage.

Senator COHEN. As far as category four, has there been a dramatic reduction?

Admiral HAYWARD. There has been a significant reduction in mental group four, but an increase in the lower half of mental group three. The combination of those two tends to stay about the same. It is harder for us to give you precise numbers on mental group four because we changed the reporting techniques 2 years ago.

You can't look back 5 years and get a precise trend line, but the mental group fours are declining. We are taking fewer of those, but we are taking a larger number of lower threes.

Senator COHEN. Thank you.

Chairman TOWER. Senator Quayle?

Senator QUAYLE. Thank you, Mr. Chairman.

Mr. Secretary and gentlemen, I am glad to see you back again. I have a question on the Trident submarine.

We hear a lot of talk today about the so-called window of vulnerability. As you well know, there is a great deal of discussion, controversy, delay and postponement on resolving the basing issue for MX.

TRIDENT SUBMARINES

Would you give us an assessment of this so-called window of vulnerability, and if in fact it might be closed if we accelerate the production of Trident II and D–5 missiles. I would also appreciate any thoughts that you might have about moving that program ahead more quickly than has been planned on the basis that we are having some problems with the land-based missile.

Secretary LEHMAN. I believe that the sea-based strategic systems are from a theoretical point of view the most stabilizing of the force improvements. Because of their very high survivability you don't have the use them or lose them problem that you have with land-based systems.

The other legs of the Triad, the land-based legs, have their own compensating strengths. I dont mean to downgrade them, but improving the sea-based leg does in no way provide any problem of perception with the Soviets that we are going for an offensive first-strike threat. That is why the modernization programs that have been put forward are so essential; not only to close the window of vulnerability, but to help improve the stability of the balance.

D–5 MISSILES

We have a program to deliver the D–5 by 1989. We are looking internally in the Navy at ways that, by the addition of some prudent concurrency, we can improve that date. We can actually save money overall in the program and will, as this proceeds, be consulting closely with the committee.

I would not, at this point, support the shifting of any funds out of other essential parts of the strategic Triad modernization to try to further accelerate the D–5 IOC or to increase the number of SSBN's and so forth.

I believe the overall strategic program submitted by the President is a very balanced program and we in the Navy support all of the modernization initiatives. We particularly feel a major contribution has been made by the President in drawing more attention to the C^3I initiatives that can do so much to improve our defensive capability without deploying more nuclear warheads.

Senator QUAYLE. Since this is the most survivable system why should we not give this top priority, considering that we are having some problems on the land-based system.

Secretary LEHMAN. We in the Navy do not want to allow the Soviets the relief of being able to concentrate more of their resources against our submarines. By not modernizing other legs of the Triad we take the pressure off them to deploy whole new air defense layers and to reconfigure their own ICBM force to deal with the modernized MX, which would allow them to shift those resources into strategic anti-submarine warfare.

We think that the great advantage of the Triad is the complexity that it provides to the enemy's defense task, which makes it impossible for him to concentrate enough of his resources in one area to solve that overall defense problem.

Senator QUAYLE. You mentioned the enhancement of C³I. I wonder, in relation to that, if you could give us an assessment on the importance of GPS to the D–5 missile and its hard target capability.

How important is GPS going to be to the Trident II and the D–5? Is it essential for the accuracy and the hard target capability?

Secretary LEHMAN. I would like to defer discussion of that to a closed session of the committee where we could go into that in some detail. Suffice it to say that GPS is very important to the Navy for a wide range of missions.

Chairman TOWER. I would like to suggest, Senator Quayle, that this can be explored by the Sea Power and Force Projection Subcommittee in executive session.

Senator QUAYLE. I will defer that for the executive session.

I am interested in whatever you can say publicly to support GPS.

Secretary LEHMAN. We have never waivered in our support of GPS.

Senator QUAYLE. Is it a very high priority item for future development for the Navy?

Secretary LEHMAN. Very definitely.

Senator QUAYLE. Thank you. That is good enough for me.

P–3C ASW PATROL AIRCRAFT

I notice that you have publicly stated that we do not need any more P–3C's in the past. That was reported in the press. Now that we know that they are back in the budget do you think we have enough P–3C's for the next year?

Secretary LEHMAN. The P–3C provides a new generation of capability in signal processing and in the ability to find submarines. It is an excellent weapon system. We see no need to shift to some brand new ASW patrol aircraft.

The P–3C however, faces an affordability problem. There is almost no system in the Navy that we are prepared to pay any price for because at some point weapon systems simply are too expensive to continue to procure. We hope that the P–3C can be procured at a unit cost that is below that threshold and that is why we have it in the budget. We currently have over 400 P–3's.

Senator QUAYLE. Do we have enough now?

Secretary LEHMAN. As far as quantity of airplanes to meet unit requirements we have enough airplanes. We do not have sufficient quality late-model airplanes as we would like to have. Whether we can afford that depends on being able to achieve a procurement

cost that is reasonable. This is why we have been concerned over what happens in the allocation of overhead with the cancellation of the L-1011 and other factors that could potentially impact the unit cost of the P-3C to the point where we could not afford it.

Senator QUAYLE. In light of the budget situation how important a priority do you attach to the P-3C?

Secretary LEHMAN. I would hesitate to try to rack up priorities on the program we have put forward because it evolved over a lot of hard——

Senator QUAYLE. In my remaining time let me go to another subject.

RDF AND SEPARATE UNIT COMMAND

The RFD and the separate unit command. Can you bring us up to date on where we stand with that? Is the separate command unit going to be at sea?

I personally don't see any possibility in the next 5 years that in any of the Gulf States we are actually going to have physical presence.

Can you bring us up to date on where we stand with the RDF command situation? Will we have a separate unit command at sea?

Secretary LEHMAN. I would like to defer to my two service chiefs to answer that question. It is more properly a JCS matter.

Admiral HAYWARD. The President made a decision several months ago that established the command arrangements and gave us general guidelines on the pace at which we were to make the RDJTF commander into a unified full commander. We have established a joint task force separate from its previous connection with the readiness command. It reports directly to the Joint Chiefs.

We are proceeding very aggressively to fully implement that program to support the commander with the necessary forces, the necessary communications, intelligence, and the staff support to accomplish his task.

The headquarters is located now at MacDill AFB in Florida. It will remain there until there is another option. We are not predicting yet what other option will show up. No decision has been made to make that commander afloat in the Indian Ocean.

Chairman TOWER. Mr. Quayle, your time is up.

Senator Nunn?

Senator NUNN. Thank you, Mr. Chairman.

Mr. Secretary, Admiral Hayward, General Barrow, I welcome you here this morning. I haven't had a chance to read your whole statement. I want to ask two or three questions.

Mr. Secretary, as I understand, what you have said this morning is that one of the most significant changes that has taken place in the strategic balance in the last couple of decades has been the Soviet naval force capability in the Pacific, their buildup there, is that right?

Secretary LEHMAN. I believe so, yes, sir.

Senator NUNN. Then you said if we achieve a certain number of ships—I am not clear on exactly how many—from that point on the Soviet buildup in this Navy is irrelevant to the overall balance

and we hope they will shift their resources in that direction, is that right?

Secretary LEHMAN. I would say that that is indeed correct. Without speaking in absolute quantities if they continue to add it will complicate the Navy's problem; but looking at it from the larger, national security picture I would be more pleased to see that allocation of resources than a continuation of the way it is being allocated now.

15-CARRIER BATTLE GROUPS

Senator NUNN. The question then becomes what number of ships puts us in a posture in the U.S. Navy where we really do hope that they will then devote their resources primarily in the Navy because that is a shift in our interest.

Is there a number here? Is the 600-ship Navy the magic number at which we hope the Soviets will then shift?

Secretary LEHMAN. We believe that given the most prudent, even worst case assumptions of what the Soviets can build and given their own problems of block obsolescence, that achieving 15-carrier battle groups will provide us the war-fighting capability by the end of this decade to achieve our maritime objectives in conjunction with our allies.

I am by no means prepared to say that 5 years from now, the Soviets having obliged us by reducing the number of their frontal aviation wings in order to tool up to build twice the number of submarines, that I won't modify that and say that 16 or 17 battle groups may be necessary for the mid-1990's. We are confident, however, that 15 battle groups gives us a prudent risk force to achieve our objectives against whatever we foresee them doing in force deployment over the remainder of this decade.

Senator NUNN. So what we have to do is get the 15 battle groups and at that point in time we can be reasonably assured what they do in the next decade is almost irrelevant, assuming they shift land-based air, even assuming they acquire different geographic positions vis-a-vis the choke points?

Secretary LEHMAN. If the Soviets did undertake a major reordering of priorities, as a result of our having achieved 15 battle groups, that would cause us in the maritime forces to obviously look very closely at each of the theaters, how they are affected and what the implications are for our own force levels.

I think the compensating diminution of the threat, in those areas where they reduced resources, would be very beneficial to world stability.

Senator NUNN. Like strategic forces?

Secretary LEHMAN. Like strategic forces and like an Afghanistan type of general purpose intrusion around the world.

Senator NUNN. The interesting thing about this is just the other day we had testimony from the strategic end that we hoped the Soviets would put more money in survivability of their strategic forces, less money in first strikes. That would cost them an enormous amount of money and would be stabilizing.

If your strategy envisions their putting more money in the Navy and the Department of Defense strategic force group's strategy is

for them to put more money in survivability of strategic forces, I don't know that they are going to follow our desires either way.

It seems to me we have a basic conflict here. Are you really speaking for the Department of Defense when you say part of your naval strategy is to get them to have a naval buildup because foreseeably that is irrelevant to the balance if we achieve a certain level? Is that a naval statement, your personal view or the Department of Defense's view?

REALLOCATION OF SOVIET RESOURCES

Secretary LEHMAN. It was in response to the question that was asked me earlier, would it disturb us if the Soviets began to allocate resources to try to cope with our 15-battle-group Navy? It is my personal opinion, in responding to that question, that it would be a stabilizing development to see them reallocate resources.

You put forward a hypothesis that is certainly possible, but whether it is likely that they would take resources from the survivability of their strategic forces rather than reducing the number, I don't know.

It is very expensive to keep an SS-18 silo; I think we estimate some $30 million a year. It would be more reasonable to assume that they would simply start to retire those expensive older systems and keep survivable the ones that they have most recently invested in.

Senator NUNN. Admiral Hayward, I have to depart.

Mr. Chairman, I would like to reserve the balance of my time, if I have any left.

Admiral Hayward, do you agree with the statement that in the foreseeable future with the foreseeable Soviet buildup that it could be possible that we can achieve a certain number of ships within this program and at that stage the Soviet Navy and the numbers and so forth become irrelevant?

Admiral HAYWARD. I think the question is too simplistic to answer simplistically.

Senator NUNN. If the question is simplistic then the answer is simplistic because that is what I just heard.

Admiral HAYWARD. That is not the way you judge naval forces in the long term.

What we are getting entrapped in is in response to a previous question; if we created an incentive by building up our Navy for them to build more, would that be troubling to us, and I think I agree with the Secretary in the sense that there are other ways they could spend their money that would be more troubling.

I can't accept the thesis that if we get the 15 battle groups, the Soviets can have all they want and it doesn't make any difference to me. I have never reported that to the Secretary of Defense, the Joint Chiefs never have, and I can't support that here.

NAVAL SUPREMACY GOAL

Senator WARNER. If the Senator will yield—we are on a course to achieve naval supremacy. What reason do we have to believe that the Soviets will let us continue on that course, that they will not reorder their priorities and begin a construction program which

will not enable us to achieve the supremacy, the goal you have in mind?

Admiral HAYWARD. I don't think anybody can answer whether they would or would not increase their building program. Without getting into classified responses, if you watch what the Soviets have been doing for over 20-some years it is almost irrelevant to the size of the U.S. Navy. They lay out a very firm plan and they stick to it. They are building the kind of Navy they set out to build.

It has been basically irrelevant as to whether we go up in ship numbers or down. If we strive to achieve maritime superiority in our terms that will surely cause them to have to reexamine the kind of Navy they build and try to compensate for that.

Senator WARNER. That is the point.

Admiral HAYWARD. Their total investment in defense today is extraordinarily high. It is difficult to imagine that they could redirect more resources out of their economy into defense just to compensate for our strategy of building up our Navy.

If we do not build up our Navy because we are fearful that will cause them to build more Navy, that would be a tragic decision for us to make.

Chairman TOWER. Senator Warner, I have to warn you you are speaking out of turn.

Senator Hart?

Senator HART. Thank you, Mr. Chairman.

First of all, General Barrow, you made a statement that I would like to respond to, regarding whether or not there was a segment of the American people who felt they could not afford the Marine Corps.

If there is any fear of that on your part coming from here on the Hill or out in the country, I want to lay it to rest so far as this individual Member of Congress can. That is not the case.

I have never heard anybody here on the Hill or any of my constituents even suggest that. To the contrary I think you still represent a service that has very high esteem among the American people, and rightly so.

I think that Congress will continue to support you—maybe not as much as you and I would like, but as much as we can generate.

LARGE VERSUS SMALL AIRCRAFT CARRIERS

Mr. Secretary, as you might expect, I would like to turn to your testimony about large versus small aircraft carriers for about the 8th straight year.

You say it is one of the oldest debates in the postwar defense policy. I don't know how far back it goes. I don't think that debate has been conducted nearly enough inside the Navy. It has gone on in this committee to a limited degree.

I would like to talk today about this phony business of supremacy and numbers, which is important, but never gets us anywhere again in the 8 years I have been hearing it.

Last year, as I recall, your testimony and Admiral Hayward's testimony, had to do with the primary mission of the Navy, that being to attack the Soviet fleet at practically all points and destroy it.

That is an oversimplification of what I recall your summary of naval doctrine to be. My question would be is the kind of Navy we are building, the 15-carrier Navy prepared to defeat an increasingly heavy Soviet submarine fleet? Your small versus large carrier analysis does not address that issue. It once again asserts the superiority of the large carrier versus the small carrier in abstract terms.

Is a 15-carrier Navy, which increasingly dedicates its assets to the protection of the carrier, both surface and air, prepared to defeat head on a superior Soviet submarine fleet.

Secretary LEHMAN. The protection of the carrier is simply another way of describing defeating the Soviet fleet because the submarines you encounter in defending the battle group are the same submarines you want to destroy regardless and why the battle group is there in the first place. I think it is intellectually unfair for critiques in the press and elsewhere to continually say we are procuring the entire fleet to protect the carriers. The fact is a battle group is a way of organizing a variety of assets that are designed to cope in different ways with the threat as it exists whether it be submarines, surface ships, land-based aviation, V/STOL aviation and so forth.

The large carrier is what we now organize our battle groups around because we find that it is the most cost-effective way to put together true war-fighting capability. Sure, we could have 22 smaller battle groups half the size we have now, with half the number of ships, but they would not be able to cope very well with the threat or achieve the military objectives to secure the sealanes, the choke points and the naval bases that threaten our forces the way that a battle group organized around a big carrier can presently accomplish.

Senator HART. So your judgment is that the big carrier is the most cost-effective measure of sinking submarines, is that right?

Secretary LEHMAN. If you want to take each of the many tasks that a battle group must perform and break them down as to how you do it, that is a very different kind of analysis.

The battle group depends very heavily on our fast attack nuclear submarines. We depend on escorts with their own ASW capability. We are investing money to enhance battle group capabilities to conduct ASW, by way of the LAMPS III helicopter, and so forth.

The overall coordination and superiority that allows smaller ASW assets to operate derives from the very highly integrated battle force that kills submarines, kills surface ships, kills Backfires, kills incoming Cruise missiles and kills the whole threat that we have to cope with.

Admiral HAYWARD. Senator Hart, if I might say one thing. There is no commander afloat today who would in any way consider the use of the aircraft carrier as the principal weapon to go after submarines, large or small.

PRINCIPAL SOVIET NAVAL THREAT

Senator HART. What do you think the principal Soviet naval threat is to us?

Admiral HAYWARD. It depends on what it is we are trying to do and where we are trying to do it. Our objective is to control that ocean area where the scenario demands that we control.

Senator HART. But not attack the Soviet threat in its home waters?

NATO WAR SCENARIO

Secretary LEHMAN. If I might just take one scenario that generates a lot of discussion. We are committed under article 5 of the NATO Treaty to treat an attack on Norway as an attack say on Long Island. Quite apart from the military strategic need to hold onto the flanks, it is the law of the land that we hold onto the flanks and defend them. Also, Norway happens to be a very key strategic asset for conducting any defense of Europe. We, therefore must be able to keep Norway secure. To operate in the Norwegian area the U.S. fleet requires a capability to cope with a great many submarines, a great many long-range and shorter-range aircraft from Soviet bases and to cope with these threats simultaneously. How we do that is a question of strategy and tactics that we exercise and excercise thoroughly.

Senator HART. You are prepared to take a large carrier battle group into those waters?

Secretary LEHMAN. It would be foolish to take one carrier up there alone and we would not plan to do that.

We would do it the way we exercise, which is to do it in multiple reinforcing carrier battle groups with plenty of submarine support and plenty of land-based air support from AWACS and from allied air forces. You don't just walk up there. You plan it as a major operation. We are confident that with the systems that we have coming into the fleet and with those that are there now, we can effectively operate up there. We have demonstrated that we can deal simultaneously with the submarine, air, and surface threat.

Senator HART. The issue gets down to the use of the word plenty when our submarines are outnumbered three to one. The balance is less favorable the closer you get to Soviet waters.

I was struck by your statement that we don't require conventional submarines because the allies have them. You then call for building two additional carriers to bring the force up to 15 and you don't count the allied carriers. On the submarine imbalance you count the allied submarines, but on the aircraft carriers you don't count the allied carriers. They have two French and one Australian V/STOL carriers and two British and one Spanish V/STOL carrier.

Secretary LEHMAN. I counted them. I singled out submarines as one example. We depend on the capabilities that the French Navy, that certainly all of the NATO navies can bring to bear including their carriers. We factor that in regarding to what we need to bring to the balance to secure the objectives. The allies can't do it alone nor do we intend to do it alone.

LSD–1

Senator HART. General Barrow, as you know, the LSD–1 class is being designed to serve as the V/STOL carrier and an ASW carrier

as well as an amphibious assault ship. As I understand the proposal that ship would operate serially, that is, it would be primarily an amphibious landing ship with marines on board. Once the marines were disembarked then it would return for conversion very quickly to some sort of ASW or V/STOL carrier.

Do you think that the most effective way of using that ship or do we have any other alternative?

General BARROW. I think it does offer some advantages and some flexibility of use as long as the primary mission remains to disembark and project marines.

I think perhaps the kind of usefulness you speak of would be more nearly found at the outset, depending on the mission to be accomplished. If a mission required a light attack force to go somewhere and do something, there might not be any marines on there first, this might be used for that narrow specific purpose.

Senator HART. I certainly would not want to search for submarines with marines aboard.

General BARROW. I don't think that would be a marine mission, no, sir. I would see them attacking shore targets which would be most appropriate.

[Recess.]

Chairman TOWER. Senator Jepsen?

Senator JEPSEN. Thank you, Mr. Chairman.

I was pleased and impressed with the thoroughness, the optimism and the enthusiasm of the statements made this morning. It is good to be on the same team with you folk.

Mr. Secretary, Admiral Hayward talked on the events in the Gulf of Sidra last August as an example of the developing threat to our sealane communications.

Will either you, Admiral Hayward, or Secretary Lehman, describe in as much detail as possible in open session, the levels of harassment by the Lybian Air Force that surrounded the air battle in August of last year between Libyian S-22 Fitters and our F-14's?

Admiral HAYWARD. I am not able at the moment to sort out what is classified and unclassified to give you a sufficient answer. I would rather provide it to you directly for the record and then I can classify it appropriately.

[The information will be provided in a briefing.]

Senator JEPSEN. I would appreciate it if you would. I am not surprised. There are some things, the numbers and so on that are classified.

Recent articles have stated that the more modern Soviet aircraft are being flown almost exclusively by pilots from the Soviet Air Force. The Soviets are said to have direct and active control over all modern Soviet aircraft based at Okba Ben Nafi, the central airbase complex. Although the Fitter is no match for the F-14 it certainly is one of the most advanced Soviet tactical fighters.

Do you know the nationality of the pilots flying the SU-22's?

Admiral HAYWARD. The ones during the Gulf of Sidra?

Senator JEPSEN. Yes.

Admiral HAYWARD. They were known to be Lybian.

Senator JEPSEN. They were known to be Lybians?

Admiral HAYWARD. Well, of the two that were shot down. There were other nationalities present during the 2 days we were there, present and airborne. I would have to provide that as a classified answer.

Senator JEPSEN. As far as you can determine, was the attack against the F-14 in August ordered by the Lybian high command?

Admiral HAYWARD. I think we are quite confident they were, yes, sir.

Senator JEPSEN. Could this attack have taken place without the permission of Soviets or their active assistance?

Admiral HAYWARD. I will give you my own estimate of the situation. Absolutely. I think Colonel Qadhafi feels confortable in acting independently and on his own without direct Soviet approval.

Senator JEPSEN. I think it is best we get this in the record. I will explore this further.

REVIVAL OF GI BILL

Mr. Secretary, do you support the revival of some form of the GI bill?

Secretary LEHMAN. We support initiatives that will continue the momentum of the compensation initiatives that were started in this committee, including educational benefits. We are not currently enthusiastic about any single bill exactly in its present form. We feel that retention is the most important element to be addressed. The top priority issue, in our judgment, is to fix the 1989 expiration of the GI bill benefits. In initiating new GI bill benefits the first and foremost incentive must be to retain, to draw into the service people that we will keep after we have invested the money to train them. The Navy would not favor any program that would de facto give an incentive to leave to use benefits rather than stay.

Senator JEPSEN. General Barrow, would you care to comment.

General BARROW. If you are asking for my personal opinion I think the initial GI bill we had was one of the best things that ever happened to this country. It provided an opportuinity for education to a great many young men who served, and strengthened this country enormously.

I think that we should give serious consideration to it, and to feed on the Secretary's last comment. One of the ways to deal with that problem, of course, is to have the transferability clause.

I do believe that a great many of our men who serve, particularly as they become careerists and develop families, are more interested in the education of their children than they are in the education of themselves. As long as that clause can be worked in there I think you would retain the man. You would still have an attraction to him as relates to his children.

MILITARY PAY INCREASE

Senator JEPSEN. Secretary Lehman, do you support an 8 percent across-the-board increase for Marine and Naval personnel this year?

Secretary LEHMAN. Assuming 8 percent is required to support the same level of compensation that you achieved in the 1982 bill I support it. I would urge, and I have repeatedly said that this takes

a higher priority than program elements, acquisition, research or any other element. Now that we have achieved the restoration of a livable level of compensation, we must keep that level.

Senator JEPSEN. Is the Department of Navy working on such a proposal now in the Department of Defense?

Secretary LEHMAN. I believe that is definitely true, yes, sir.

Senator JEPSEN. Can you give me some indication of when the manpower personnel subcommittee might get a peak at it?

Secretary LEHMAN. I believe they are intending to be prepared to provide a definitive position when you have your hearings, sir.

Senator JEPSEN. From what you know today do you feel there is a more cost-effective pay adjustment mechanism that can be developed?

Secretary LEHMAN. I think that the package that your committee put together last year has brought forth the most dramatic and direct savings to the taxpayer of any program I am aware of. The money that you have saved the taxpayers with your bonuses, the variety of compensation measures that were crafted at such great effort, in aviation bonuses, in nuclear bonuses, in selective reenlistment bonuses as well as the way the pay raise has spread, has enabled us to see such dramatic savings that it makes the out years look very different and much more favorable to us.

I have never seen, in my time in Government, such a rapid demonstration of cost savings as the results of those pay initiatives.

GULF OF MEXICO SEALIFT

Senator JEPSEN. Admiral Hayward, what percentage of our sealift would pass through our ports in the Gulf of Mexico in the event of a war in Europe?

Admiral HAYWARD. I think the general answer is something close to half. It runs between 40 and 60 percent depending on the precise way we execute the plan. it certainly is a very substantial amount and therefore requires that we have absolute control of the Caribbean, including the Florida Straits, and can totally dominate any activity which the Cuban forces might seek to apply or the Soviets might seek to use through Cuban ports or airfields.

Senator JEPSEN. We have read a great deal of reports lately of the expansion, the upgrading of the Cuban military forces. The Soviets have sent a squadron of helicopters and the Cuban Air Force is receiving two squadrons of Mig-23's. The Cuban Navy is also being updated.

Describe, if you can in open session, the additional requirements that you now have as a result of the upgrading of the Cuban military force?

Secretary LEHMAN. Senator, this is a very good example of the reasoning that makes so essential the force expansion that is embodied in this proposal. The fact that the Soviets have been able to, over the years, build up a cruise missile patrol boat force in Cuba of over 50 modern boats, introduce into the Cuban Navy a brand new class of frigate, build up the Cuban Air Force with interdiction strike aircraft, and put new diesel electric submarines in there demands our response. We can of course, cope with that threat in time of war, but it is going to take forces and it is going to take

time. Those are the two elements that are the most crucial obviously in the military balance. Forces required to secure the Florida Straits and the gulf where 50 percent of our logistics flows will not be available elsewhere. It is one more example of how the Soviets, with their steady force expansion, directly and through proxies, have greatly changed the strategic picture for the maritime forces.

Admiral HAYWARD. Senator Jepsen, with respect to the reason why we try to convince the leaderhip of the country and certainly this committee on the need for a minimum of 15 battle groups is because right now Admiral Train, the Commander of the Atlantic, would report to you that he lacks the flexibility in his force structure to control the Caribbean properly and do the rest of the job that will be necessary in the scenario you described, trying to control totally the North Atlantic to reenforce Europe.

He knows he has to control the Caribbean, he has to control all of the Cuban possibilities. His existing force structure is inadequate to do that. That is why we say that the present force structure, while it is a ready modern Navy, is inadequate to do the job because it is spread too thin. It has to become a larger force so that the commander in charge has the ability to handle the Caribbean while conducting the reenforcement. Surely those two go hand in hand.

Senator WARNER [presiding]. Senator Jepsen, your time is up. I am going to put one question to the Secretary and he can answer it for the record.

I am disturbed a bit about your response to my earlier question in relation to the economic situation, Soviet Union vis-a-vis the United States.

I want your assurance that this increased request for your Department and hopefully the Department of Defense is predicated on what we perceive as a military threat, not an effort to draw this Nation and the Soviet Union into an economic war in terms of resources.

Secretary LEHMAN. Certainly not. I did not mean to imply anything of the sort.

[Additional information follows:]

MARITIME STRATEGY

As a nation with global commitments and interests, U.S. national security requirements extend far beyond its boundaries. Since WWII, we have protected these interests through a forward defense posture that has as its objectives the deterrence of threats and a rapid flexible response should deterrence fail. Strong naval forces are essential to our forward strategy.

I want to assure you that the increased budget authority for the Department of the Navy is most certainly predicated on the very real military threat and our national strategy, as it regards maritime strategy, to defeat that threat. There is absolutely no effort to draw this nation and the Soviet Union into an economic war in terms of resources.

Senator WARNER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

On that one point you indicated, Mr. Secretary, that in a way you hope the Soviet Union would build up their offensive maritime forces even beyond where they are now in response to our effort to gain maritime superiority because the marginal improvement it would give them militarily would not be worth it.

SOVIET STRATEGIC AND CENTRAL BUILDUP

You said that such an emphasis on the part of the Soviet Union would divert resources away from its buildup in Central Europe, would take away from its strategic buildup, therefore, would be a net plus for the United States.

I am wondering how is that consistent with the fact that we have seen tremendous Soviet buildups in strategic weaponry in Central Europe? At the same time we have seen them put 136 offensive ships in the western Pacific. They have been able to do all of it. What makes you think they will not use more of their national resources, use more of their GNP than they are using now, to try to meet our effort to achieve maritime superiority and continue their strategic and central Europe buildup at the same time.

Secretary LEHMAN. It is based on an assessment by most of the intelligence community that to add any substantial share beyond their 12 or so percent of the GNP for defense spending would virtually require going to a wartime footing, given their other problems in their economy. However, I am not an economist and it is pure speculation on my part. If they were to add 5 percent more to their share of the GNP for defense spending I cannot imagine that that would not have enormous dislocations in the Soviet economy.

Senator LEVIN. We have been thinking that way for a decade. Yet we have seen the buildup that we never expected.

Secretary LEHMAN. Many of us have been saying it has been up to 12 percent for the last 23 years. When I started working for Henry Kissinger a great deal of the criticism was that the Soviets are not allocating that much. Most people were arguing that they were spending less than we were, that they were not building up. That was really the pro and con of the defense debate in the early seventies.

Senator LEVIN. Would it not be a mistake for us to base a decision of where to build up our defenses on an assumption that the Soviets are not going to spend even more to match our efforts?

Secretary LEHMAN. I believe that the decision that we have made and the President has made to build up our Navy is based on the minimum requirement to meet our national security requirements. It assumes a continuation of the current and 20-year old Soviet expansion of their own forces and a steady 3 to 4 percent growth, real growth, that could go higher.

Senator LEVIN. You don't assume they will increase that in order to match our buildup.

Secretary LEHMAN. They might increase it. I would hope that this would be some incentive, and indeed I believe there will be incentives for them to decrease it through arms control agreements.

Senator LEVIN. Admiral Hayward, you stated in your written statement that in January, 1982, the U.S. Navy had but one carrier battle group in the Indian Ocean compared with the two which were present when you testified here a year ago.

Then you said that, in some sense, the fact that:

> The reduction in U.S. naval presence went so unremarked illustrates the relative ease with which Western nations accommodated to the Soviet incursion into Afghanistan.

Do you include us among the Western nations?

Senator HAYWARD. Absolutely.

Senator LEVIN. I could not agree with you more, Admiral. And that is quite a frightening statement with which I concur.

Yet we tried to increase the amount of steaming days in the Navy budget so that the United States could have two carrier task forces in the Indian Ocean, instead of one and a half on the average, and we ran into tremendous administration opposition.

Secretary LEHMAN. Senator, the reason is because the steaming days are not a measure of where you put your forces. We are quite prepared to put in three or four carriers if there is a military task for them to perform.

Senator LEVIN. It does not make it easier to have carriers in the Indian Ocean or anywhere else if you increase the Navy's steaming days?

Secretary LEHMAN. If you increase the share of real resources allocated to the Navy, we can deploy forces to a certain point more easily. However, we are about at the limit of where we can deploy a small one-ocean Navy to meet three ocean commitments, that include the Indian Ocean, without severely reducing their ability to fight while they are there. So it is not just a case of throwing money at a problem which some of the amendments that were offered to the appropriatons bill sought to do last December.

Senator LEVIN. We are not talking about some of them. We are talking about a specific amendment on steaming days and whether or not that would have increased the Navy's capacity for presence in the Indian Ocean?

Secretary LEHMAN. If we required our forces to provide even two deployable battle groups to stay longer in the Indian Ocean, without compensating reductions elsewhere, by simply increasing steaming days it would actually decrease our ability to retain and keep the force ready and well maintained.

Senator LEVIN. In the past we have discussed steaming days in terms of the Navy's objective for them. I understand the Navy's objective is 43 steaming days per quarter; is that true?

Secretary LEHMAN. Senator, the Navy has to run the preparation of its budget through the normal computerized programing models that set objectives on a numerical base.

Senator LEVIN. Is that your objective?

Secretary LEHMAN. The objective is 42 days, I believe.

Senator LEVIN. I think it is 43 days.

Admiral HAYWARD. Forty-three days.

Senator LEVIN. Per quarter. That is the Navy's stated objective?

Admiral HAYWARD. That is the unified commanders, the operators objective which I try to support.

Senator LEVIN. In the fiscal year 1981 budget that level was maintained. As a matter of fact it was 43.8 days per quarter.

In 1982 that fell to 41 days per quarter and in the 1983 budget before us, we see that operating tempo is now falling to 40 days per quarter.

Admiral, do you support the 40 days per quarter steaming day figure in the budget or would you like to see that up at your objective of 43 days per quarter?

Admiral HAYWARD. I support in context the whole budget. To go back to what the Secretary is saying, it is the spinout of all the

computer modeling that goes into the way in which we expect to operate the force. We expect to operate the force in the Indian Ocean at a lesser level than in 1980–81. The Indian Ocean operational tempo is considerably higher than the Caribbean and simply requires more funds.

Senator LEVIN. I was talking about the Navy's overall average for steaming days. It is now down to 40. You call it a computer spinout. I assume some human beings fed the computer and decided 43 steaming days per quarter is what we ought to be doing?

Admiral HAYWARD. In balance with all the budget, that is a logical number.

Senator LEVIN. But there are only 40 in the budget.

Admiral HAYWARD. That is correct.

Senator LEVIN. So we are 3 days short of our own stated need for steaming days which is a greater shortage than last year and a greater shortage than the year before.

Doesn't that mean the trend in meeting the steaming days needed is downward?

Admiral HAYWARD. Not really. What it does say is the amount of time we have budgeted for operating in the Indian Ocean is down and we will have to adjust the way we operate off the East and West coasts of the United States to stay within the funds allocated in the budget.

OPERATION AND MAINTENANCE READINESS

Senator LEVIN. One of the underlying issues of which this really is a part is what budgetary resources we devote to operation and maintenance—readiness—compared to the procurement account. There are some interesting figures on that which I will mention regarding the overall DOD budget.

Overall the percentage of the DOD budget which went to O. & M. in 1977 was 29 percent. That grew to 30 percent, and I am rounding off these figures, in 1978; it grew a little bit more in 1979. It rose in fiscal year 1980 to 31.6 percent in terms of the percentage of the overall DOD budget devoted to O. & M.

We have always felt, at least many of us on the committee have felt, that we have the O. & M. account, the readiness account, in DOD. But we are seeing that, beginning with fiscal year 1981, there is a reduction in terms of the percentage of the DOD budget that goes to readiness, goes to operations and maintenance.

Starting in fiscal year 1981 there is a reduction of 1 percent, from 31.6 percent to 30.4 percent, of the DOD budget going to O. & M. In fiscal year 1982 that is down by more than 1 point, and another percentage to 29.1 percent. In fiscal year 1983 it goes down to 26.7 percent. In terms of the percentage of the DOD budget which goes to readiness, which for at least many of us is a critical question, we are going to see a reduction in that percentage.

Secretary LEHMAN. That is not true, actually. It is a real increase of about 13 percent in real absolute dollars during that period. Of course it should be obvious after the Carter administration went in and slashed force structure for 4 years, relatively the share going to keep the force that remained going would obviously increase.

They have the shipbuilding program as you recall, and have the aircraft procurement accounts and so, clearly, investment went down during those years. Now we have to restore that shortfall.

Senator LEVIN. My time is up, Mr. Chairman, but are you saying the figures I gave are not true?

Secretary LEHMAN. They don't give an accurate picture.

Admiral HAYWARD. The problem is, Mr. Levin, you are dealing with percentages of the budget which obviously are going to trend differently if you are declining in procurement or increasing in procurement. Operation and maintenance dollars increased by 13.8 percent in the Department of the Navy budget.

Senator LEVIN. Unfortunately, my time is up. I shall pursue this question later.

Senator COHEN [presiding]. Senator Denton?

Senator DENTON. Thank you, Mr. Chairman.

Admiral Hayward, you are defending the President's budget and giving your impressions of the naval service's means of using your portion of it, the readiness you foresee coming from it, and it seems to me one of the most important questions we can address today is the question being addressed throughout the Nation, in the media, and addressed at every luncheon as well as official meetings we have here in this body and that is whether or not we are going to cut defense, and how much in order to take care of the apparent deficit which we are going to have.

We have alternative suggestions such as one from a very well-known member of my own party which was publicized, namely a defense tax surcharge. I find the issue of defense cutbacks somewhat "Alice in Wonderland" in view of the fact that in 1960 we were spending twice as much for defense as we were for social services and we now find that ratio reversed.

During that 20-year period, tens of millions of people have gone down to a totalitarian system that can scarcely be called compassionate. The examples of atrocity represented by the yellow rain in Afghanistan and Southeast Asia, and the calculated aggression represented by the Soviet Union's naked invasion of Afghanistan call to mind the invasion of Poland in 1939. The ominous state of world affairs demands that we address the trend of the past 20 years and fulfill our constitutional duty to "* * * provide for the common defense."

We now face a new commitment, one set forth yesterday by the President of the United States that we would do all that is prudent and necessary to insure the security of the Caribbean basin.

I have just returned from Latin America where I was briefed not only by COMSOUTH but by diplomats of that area. I would add that the diplomats speak privately much differently than they speak publicly.

DEFENSE UNDERFUNDED

The implications of that new commitment I wonder about. Are they reflected in the President's budget?

Admiral Hayward had words to the effect that defense is still somewhat underfunded. I agree with that assessment. I know how careful you have to be in addressing the political waters on which

you tread, but would you consider it possible to ask for supplmental appropriations in view of the growing communist sponsored instability in Central America and our Nation's renewed commitment to regional security?

Admiral HAYWARD. As I read what the President said yesterday, he fully intended to come forward with a proposal for the funding of that program and does not intend it be taken out of the existing budget, certainly not to be taken out of the defense budget. The program depends on economic and technical support that has some requirement for foreign military assistance on or part.

It is clear that we in the Navy could not take it out from our readiness accounts in order to maintain higher——

Senator DENTON. I am not referring to the economic aspect of the program. I am referring to the single statement of commitment that the United States will do all that is prudent and necessary to insure the security, et cetera, which is really a separate declaration and commitment, allied with the program of economic development.

Admiral HAYWARD. If the President's program is supported by the American people and if it produces the results we desire, which is to create an atmosphere of confidence in our Central American friends so that business can be restimulated, so that political institution can be stabilized, then the requirement for heavy military investments will not be necessary because an aura of security must prevail in order for the program to work.

The recommendation of the Joint Chiefs throughout this deliberation has never been for a massive increase of military support, but a sufficient increase to insure there will be stability and security in the area. We think that those kinds of moneys are reasonable and that this country absolutely should support the countries in the Central American Caribbean area.

Senator DENTON. There would be ways in which you and General Barrow could address this. Has there been a strategic adjustment in respect to the correlation between CINCLANT and COMSOUTH in looking to this area or are we in the very rudimentary stages thereof?

Admiral HAYWARD. I am very comfortable with the relationship that goes on from the command point of view, who is responsible and who understands the problem.

Senator DENTON. It has to do with the fact that COMSOUTH has very little, if any, naval component, commands, unified coordination in that area. The situation is somewhat unique.

Admiral HAYWARD. The capability of naval forces to go where and when you want them in support of a commander is a given. There is no reason why the Atlantic Fleet Commander will not support totally the requirement of USCINCSO if it is in the national will.

If the President and JCS require that naval support be given, it will be given.

Senator DENTON. General Barrow, I am asking a question that is somewhat diplomatically oriented.

Could we get from Panama the right to put Marines there as a staging area, not for U.S. intervention, but for protection of the

canal or getting into another posture regarding the reality of forces in a given area?

General BARROW. Of course there are Army forces in the canal, presently, under acceptable conditions and agreement. I don't see any requirement to add Marines to that equation.

CUBA BUILDS UP ARMS

Senator JEPSEN. Senator Denton, you and I have discussed this in detail. I know you are concerned about what seems to be a major buildup. I am saying things now that are a matter of record, in the Baltimore Sun on February 24 and Chicago Tribune on February 19, and I might quote: "Cuba has reportedly acquired what the U.S. Joint Chiefs of Staff described as 'one of the world's most heavily armed ground attack helicopters'."

In addition they supplied at the same time two more high-speed missile-firing boats. The attack helicopters and missile boats were said to be among the latest weapons.

On February 24, 5 days later: "U.S. Intelligence and analysts now expect the Soviet to double its supply of Mig-23 jets to Cuba."

It says two more squadrons of 12 planes are to be shipped. They are expected to free up less advanced models in the Mig series for movement from Cuba to Nicaragua where airfields have been prepared.

I have skirted the surface. There seems to be something brewing down there. There is a growing concern that you don't have the equipment.

I just came back from the Pacific. I was briefed by Admiral Long and CINCPAC. Senator Denton and I compared notes the other day. I think your question was: Do they have the things they need down there in view of what is coming.

BALANCE OF FORCES IN CENTRAL AMERICA

Senator DENTON. Yes, I don't want to throw up the spector of U.S. involvement. I think the things I am talking about, the candid considerations of the fact of balance of forces that are being offered in that area and proper actions and response would tend to lower the probability that the United States would have to become involved there. There are indeed other nations in the region with full capability to impose such things as naval blockade or interdiction, but in order for them to get the spine to do so against the threat of terrorism and strikes within their respective countries, they have to see some kind of tender from us.

That requires candor. It requires getting over the kind of reticence we might have developed after Vietnam. I was getting at that. You can't give the job to CIA, or the Secretary, or Joint Chiefs.

Senator COHEN [presiding]. That completes the first round of questioning.

I should advise the committee members that Senators Baker and Byrd have specifically requested for the third time that Members remain on the floor for a period of 4 hours this afternoon so they can complete the work on the Department of Justice authorization.

Otherwise we are going to continue to have a series of quorum calls which will only further hinder our proceedings.

With that in mind, Senator Nunn, you have 3 minutes remaining on your original time. What I propose to do, if the rest do not have a burning desire to question the witnesses today, is submit questions in writing and hopefully get as expedited a response as possible by Friday.

Senator NUNN. Thank you, Mr. Chairman.

600-SHIP NAVY

Mr. Secretary, on the question of the 600-ship Navy, I want to ask you a question for the record because I am confused on that.

We have different figures and they probably relate to different periods of time. There is one figure in Secretary Weinberger's statement, Admiral Hayward had another one and you had another one. There may be different time intervals here.

Could you supply for the record the projections betweeen now and 1989 about how you get to a 600-ship Navy and what the categories are?

Also if you would show whether the Carter administration projection would have been based on the same categories. I understand the definition now includes reserve ships which a year and a half ago it did not.

So the numbers seem to change rather significantly. Could you supply that for the record.

Secretary LEHMAN. Yes, sir.

Senator NUNN. Is there a common definition on how you count?

Secretary LEHMAN. There is. Basically the Carter administration changed the method of counting by adding in all the reserve ships and the auxiliary ships that were never counted before. So the number jumped from 450 to about 530. We have gone back to the traditional way of counting with the exception that we are now initiating a policy to introduce relatively new 1051 frigates and modern FFG–7's into the reserves and we believe they should be counted as well. Also some of the newer auxiliaries and so forth. Basically, we are using the old method modified to recognize the fact that we are now putting new ships into the reserves and we are deploying auxiliary ships with civil service crews that we previously did not deploy. I will provide examples for the record.

[The information follows:]

SHIP COUNTING

	The old way	The new way
Called	"Ship operating force"	"Total battle forces"
Composition:	All Active ships	Deployable active ships.
	All naval reserve ships	Deployable NRF ships.
	All NFAF [1] ships	Deployable NFAF ships.
Fiscal year 1980 count	538[2]	479.
Fiscal year 1983 count	582[2]	535.
Fiscal year 1990 count	[Deleted]	[Deleted].

[1] NFAF—naval fleet auxiliary force—MSC manned.
[2] Includes NTPS ships.

COMPARATIVE SHIP COUNTING

	Fiscal years—						
	1962	1968	1973	1978	1980	1985	1990
Total ship operating force	1,007	1,055	649	531	538	630	(1)
Total battle forces	890	957	576	468	479	566	(1)
Difference	117	98	73	63	59	64	(1)
Not counted							
Mobilization category B	47	39	55	53	44	18	(1)
Submarines	(22)	(20)	(—)	(—)	(1)	(—)	(1)
Destroyers	(—)	(—)	(31)	(27)	(15)	(—)	(1)
Mine warfare	(12)	(12)	(24)	(22)	(22)	(17)	(1)
Other	(13)	(7)	(—)	(4)	(6)	(1)	(1)
Auxiliaries and Sealift	70	59	18	10	15	46	(1)
Auxiliaries	(70)	(59)	(18)	(10)	(8)	(10)	(1)
Sealift	(—)	(—)	(—)	(—)	(7)	(36)	(1)
(1) NTPS/MPS/SL-7's/TAH ships included in fiscal year 1980/1985/1990 are:					7	36	(1)

[1] Deleted.

THE OLD WAY—SHIP OPERATING FORCES

	Fiscal year 1980		Fiscal year 1981		Fiscal year 1982		Fiscal year 1983	
	Active	Reserve	Active	Reserve	Active	Reserve	Active	Reserve
Strategic submarines (SSBN)	40	0	34	0	33	0	34	0
General purpose forces	416	49	430	45	452	43	466	37
Attack submarines (nuclear and diesel)	79	0	87	0	96	0	99	0
Aircraft carriers	13	0	12	0	13	0	13	0
Other combatants:								
Battleships	0	0	0	0	0	0	1	0
Cruisers	26	0	27	0	27	0	28	0
Destroyers	80	16	82	9	84	5	85	1
Frigates	71	0	78	0	82	4	90	6
Amphibious	63	3	59	6	59	6	60	6
Patrol combatants	3	0	1	0	6	0	6	0
Mine warfare	3	22	3	22	3	22	3	18
Auxiliaries (including auxiliary subs)	78	6	81	8	82	6	81	6
Subtotal	456	49	464	45	485	43	500	37
Fleet auxiliary force	26		28		28		31	
Total ship operating force	531		537		556		568	
NTPS (plus)	7		13		14		14	
Total	538		550		570		582	

THE NEW WAY

	Fiscal years—			
	1980	1981	1982	1983
TOTAL BATTLE FORCES				
Strategic:				
SSBN	40	34	33	34
AS/AK	8	7	6	6
Total	48	41	39	40

THE NEW WAY—Continued

	Fiscal years—			
	1980	1981	1982	1983
Battleforces:				
CV/CVN	13	12	13	13
BB				1
CRUDES	106	109	111	113
SS/SSN	79	87	96	99
AMPHIB	63	59	59	60
FF/FFG/FFR	71	78	82	90
PG/PHM	3	1	6	6
MINEFOR	3	3	3	3
MLSF	46	48	51	52
Total	384	397	421	437
Support forces:				
MATL	20	22	20	21
FLT	21	22	23	24
Total	41	44	43	45
MOB forces (A):				
DES	1	1	1	1
FF			4	6
Amphib	3	6	6	6
MobLog	2	2		
Total	6	9	11	13
Cumulative total	479	491	514	535
LOCAL DEFENSE AND MISCELLANEOUS SUPPORT FORCES				
Auxiliaries[1] and Sealift:				
(AGF, TAE, AGSS. AVM, AVT, TAK, TAKR, TAOT)	12	19	20	19
Other auxiliary NFAF (TARC)	3	3	3	4
Total	15	22	23	23
MOB for (B):				
NRF DD'S	15	8	4	0
Submarines (SSAG)	1	1	1	0
NRF MINEFOR	22	22	22	18
NRF FLTSPT	6	6	6	6
Total	44	37	33	24

[1] NTPS assets appear in fiscal year 1980 and beyond.

Senator NUNN. Thank you.

Mr. Secretary, in your statement you say our forces in one area must be capable of imposing restraints on Soviet activity elsewhere. In previous testimony you talked about reacting in a time and place of our own choosing which would be an essential part of our strategy.

Do you call that a war-widening strategy or what do you call that?

GLOBAL INVOLVEMENT

Secretary LEHMAN. I call it commonsense, Senator, that you don't fight a conflict with an enemy on his terms. Rather, you carry out a strategy that puts pressure on his vulnerability with

your advantage. That is not war-widening because it is inconceivable today to fight a naval war with the Soviet Union that is not instantaneously as wide as possible because they are global. We are engaged with them globally in peacetime and will be in a wartime.

Senator NUNN. How do you compute nuclear weapons in this equation?

Secretary LEHMAN. We believe that there is not an incentive for either side to cross the nuclear thresholds at sea.

Senator NUNN. I will submit the rest of this for the record. I think we probably should have a closed session at some point.

Senator LEVIN. I would like to follow up on the question I began to ask when my time was up.

Senator COHEN. I will ask all three of our witnesses, as important as steaming time is, I think Senator Levin was talking about steaming time, as important as that is to state of readiness, I assume port call serves a vital role in keeping morale, and spirits, and enthusiasm high.

MIDDLE EAST PORT CALLS

During my recent visit to the Middle East I was told—I have not confirmed this yet—that port calls to Haifa are planned to be reduced in the coming year and this already has had an unsettling effect upon some of our Navy personnel who look forward to port calls in Haifa. There aren't that many attractive port areas in the Middle East. Haifa happens to be a very attractive one.

This gets into the field of foreign policy obviously, but from a purely military point of view, would you support any such recommendation of reduction of port calls to Haifa?

Admiral HAYWARD. The port call plan is laid out by the 6th Fleet commander in the case of Haifa and that plan is developed from inputs from CINCEUR, operational consideration plus political considerations. The 6th Fleet is there to serve this country as a readiness force. The port plan is laid out with all of these factors in mind and we permit the commanding officer some very small amount of leverage to try to influence where his crew goes on liberty. They are not always able to go where they want to go. We often tell them where to go. We often tell them where to go because of political interests which may have to do with truly influencing the political situation.

In many cases we send them to ports to have repairs done by small shipyards, to help support the nations. I know of no plan for reducing port calls in Haifa for the coming year. If it has reduced, it is simply in balance with the total needs of the fleet and is caused by, if anything, the fact that you only have one battle group that now has to cruise throughout the Mediterranean.

When we had two we had more flexibility in port visits. I have not been told of any directed effort to reduce port calls in Haifa.

Senator COHEN. What came through to me, and again it is an impression I gained, is that such reduction was being contemplated, that that reduction was in fact a punitive measure that did not take into account the morale, the difficulty it might cause, not only for our naval and marine personnel, but certainly for those in Israel.

I was trying to get your reaction.

Admiral HAYWARD. I really don't believe that is a driving factor. I don't think there is any retribution of any kind. In fact the U.S.S. *Eisenhower* is going over to the Tel Aviv-Haifa area sometime very soon.

Senator COHEN. I think that is true. I think they are talking about reductions of other ships, not the *Eisenhower,* but the destroyers who would not be reporting there and there was going to be a negative reaction to that.

I will yield to Senator Levin.

Senator LEVIN. Thank you, Mr. chairman, I will have some questions for the record.

Before I complete the questions I raised before, I do want to comment on the steaming days issue which the chairman again raised.

U.S. NAVAL PRESENCE IN THE INDIAN OCEAN

Admiral, you do decry, again I join with you, the ease with which the Soviet invasion of Afghanistan was accepted in the West, including the United States, as reflected by the fact, as you put it, that a reduction in U.S. naval present in the Indian Ocean was so unremarked.

I don't know any way to restore that reduction, given present assets, without restoring steaming days. It is clearly a mark of readiness, steaming days. I am interested in pursuing that, and will at a later time, with you and in the record. I think it is an area we must seek to restore if we are going to correct the very remarkable ease with which the Afghanistan situation has been swallowed by Western nations. But, again, I will pursue that at a later time.

Secretary LEHMAN. If I could make a correction of the facts.

Senator LEVIN. Let me get to my question because you will have a chance to respond to both, Mr. Secretary, and I do want to get this question in without abusing the Chair's grace.

Senator COHEN. There is not a lot of grace in this chair.

Senator LEVIN. There is more than we probably deserve. [Laughter.]

During the 1970's, the percentage of the DOD budget which was devoted to the readiness and O. & M. accounts was 30 percent, roughly, throughout the decade—29 percent, 30 percent, 31 percent. Readiness accounts were cheated the most. The percentage which went to procurement of equipment was between 21 and 25 percent.

You believe during the 1970's we cheated on investment, too. We are not talking about whether investment was cheated or O. & M. was cheated. I think in my view and your view both were cheated.

The question is about the relative portions of the budget, the balancing between investing in equipment and maintaining equipment. How many planes you keep flying with spare parts and, how many planes you buy is a balancing operation. That porportion in the seventies was roughly, and we are talking overall figures, consistently 30 percent of the DOD budget went to O. & M., and 21 to 25 percent went to the procurement account.

There now is a dramatic shift in that. We are talking again about proportions. Beginning in 1982, the DOD proportion going to

O. & M. is 29 percent, down 2 percent from 1980. In 1983, it goes down to 27 percent whereas the proportion that goes to procurement of equipment jumps from 27 percent in 1981, to 30 percent in 1982, to 34 percent in 1983.

So there is a reversal for the first time in 1982, but even more of a reversal in 1983 when there is a larger percentage of the DOD budget going to procurement vis-a-vis maintenance and readiness items.

It is that relationship in which I am interested and not whether we cheat both accounts—which we did in the 1970's.

STEAMING DAYS

Secretary LEHMAN. I disagree with your figures, Senator. First let me correct the record.

Steaming days is by no means a good indicator of readiness. In fact the higher the steaming days, the more real readiness can often decline as we see particularly in the Indian Ocean. As ships stay out at sea week after week, month after month, the primary mission readiness indicators reach a point where they begin to fall off precipitously. Steaming in the Indian Ocean is not the best way to meet the war-fighting syllabus that we require to keep a force ready.

MPR rates decline the longer the force remains in the Indian Ocean. It is simply a programing analytical technique to move money around.

You can increase and we are increasing the readiness as measured by any real measure of readiness, MPR, or whatever by actually reducing the time of our fleet away from home port and making a more rational allocation of the way we use the fleet.

OPTEMPO steaming days are more a measure of how much you are steaming the fleet around as opposed to the quality of what you are doing.

Second, the figures for the Department of the Navy on readiness are for 1982, 54 percent, not 30 percent. In 1983, because of the larger increase in investment this has fallen to 48 percent. However, 48 percent is a good hefty part of the budget going for readiness.

Investment in force structure in 1982 was only 25 percent and this year, because of the increased carrier and submarine procurement, it is up 31 percent. But it by no means is the ratio that you suggest.

Senator LEVIN. Just for the record my figures were provided by the Department of Defense.

Secretary LEHMAN. I am sure we can provide that for the record. But I don't believe the other services, from the reviews I have sat through, are a great deal out of sync with those numbers. We are increasing by every measure in every readiness account every year of the 5-year plan in real terms.

[The information follows:]

BUDGET ALLOCATIONS

The following table shows the dollars associated with Navy capabilities:

U.S. NAVY CAPABILITIES

[Fiscal year, dollars in billions]

	1982	Percent	1983	Percent
Readiness	$33.4	54	$39.1	48
Force structure	15.3	25	24.9	31
Modernization	9.9	16	12.7	16
Sustainability	.34	5	4.0	5
Total	62.0	100	80.7	100

Senator LEVIN. Thank you, Mr. Chairman.

If I could thank Admiral Hayward for the action he has taken relative to the brigs. It has been thorough, and objective, and forthright. I want to add that.

Senator COHEN. Thank you very much. The record will remain open for any questions that Senators would like to submit to the panel of witnesses until 3 p.m.

[The questions submitted with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN TOWER

FORCE STRUCTURE REDUCTIONS

Chairman TOWER. Secretary Weinberger and Deputy Secretary Carlucci informed us that if there are significant reductions in the Defense budget they will not sacrifice readiness or sustainability but will be forced to reduce the force structure. What sorts of things might have to happen in the naval force posture if it is forced to take a 5–10 percent reduction?

Secretary LEHMAN. I could not answer your question in detail unless we had time to work out the least damaging way to take such a disastrous reduction. Let me say that we worked very hard and made many difficult decisions in achieving what, in my judgment, is a balanced budget and program. That is, balanced among mission functions such as strike, anti-air, anti-submarine, and amphibious warfare, and balanced between provision for near and long term capabilities. If we had to take such a heavy reduction focused on force structure, it would be a grievous blow to our critical need to stop losing ground against the certainty of continued Soviet expansion. Obviously, we would have to make substantial cuts in ship and aircraft procurement.

The inevitable future result would be a one-and-one-half ocean Navy, or less, to meet a dangerously formidable and growing three-plus-ocean challenge. That equates to a level of risk and exposure which I cannot believe any responsible and fully informed authority would find acceptable. We simply cannot, with any confidence, continue to defend the seas and our vital maritime interests with a static, smaller, older or less capable Navy. Where should we fall back? Which of our treaty commitments are we willing to abrogate? If cuts are to be made then commitments must be dropped. We cannot delude the public into thinking we can have both reduced forces and unreduced risk of war.

One thing is certain. Not only would we lose the capabilities of the forces not procured, but the cost of the remaining units procured would rise significantly, by undoing the production efficiencies and economies so carefully built into our plans. Thus, a 5–10 percent reduction in TOA/BA, through its multiplier effect, would result in substantially more than a 5–10 percent loss in deterrent or fighting strength in this decade.

If a 5–10 percent reduction in total outlays were assessed against force structure and modernization programs alone, the result would, of course, be disastrous, due to the very low initial outlay rates in our investment accounts.

VTX PROGRAM

Chairman TOWER. Last year the Navy assured Congress that the need for a replacement jet trainer was real and that you were prepared to proceed with the development of the VTX. Although the Navy's commitment to this program seemed to

be wavering, Congress provided the funds necessary to take the program through source selection. It now appears that the VTX is virtually unfunded through the Five-Year-Defense-Plan (FYDP).

Is the Navy committed to funding the VTX program?

What level of funding is required in fiscal year 1983 to meet the original IOC?

How will the Navy insure this program is properly funded?

Secretary LEHMAN. The Navy is committed to providing the required jet trainer aircraft in the Naval Air Training Command to ensure our ability to train jet carrier aviators in the future. We are examining all alternatives which would reduce our development and acquisition costs and still provide the necessary jet trainer aircraft to satisfy our requirements. After examining all the alternatives, the Navy will propose a fully funded program to provide the necessary jet trainer aircraft in the Naval Air Training Command.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

CARRIER BATTLE GROUPS

Senator THURMOND. Much has been said about the necessity for 15 carrier battle groups. Yet, as I understand it, we will not actually reach the 15 carriers desired unless some aircraft carriers due to retire are kept on active duty. How will this affect our defense strategy?

Secretary LEHMAN. Senator, you are correct in that our carrier construction profile will not achieve 15 carriers by 1990. Battleship battle groups (BBBG), however, while not providing the capability of a CVBG, will augment our force levels as we grow to the 15 carrier force. Under the current program we will achieve fourteen carrier battle groups by 1987. Fifteen carrier battle groups can be achieved in the near term only through reactivation of an *Essex*-class carrier or additional new construction. Once the 15 carrier battle group force level is achieved, it can be maintained through the year 2000 by replacing two carriers due to retire in the late 1990s.

SOVIET AND UNITED STATES BALLISTIC MISSILE SUBMARINES

Senator THURMOND. Admiral Hayward, what percentage of Soviet ballistic missile submarines are kept at sea versus the number we keep at sea?

Admiral HAYWARD. On an average daily basis, [deleted] the Soviet ballistic missile submarine force is kept at sea. [Deleted] the U.S. ballistic missile submarine force is kept at sea.

SOVIET MAINTENANCE PROBLEMS

Senator THURMOND. Do the Soviets have more severe maintenance problems than the U.S. experiences?

Admiral HAYWARD. Not to my knowledge. In fact, the Soviet concept of material readiness stresses conservation of resources by limiting the use of military equipment in peacetime. They apparently believe that limited use is the best way to ensure that equipment will be ready on short notice during a crisis. That is one reason the Soviets normally keep a smaller precentage of their forces deployed than we do, and why Soviet deployed forces generally maintain lower operational tempos.

SOVIET AND UNITED STATES ATTACK SUBMARINES

Senator THURMOND. Admiral Hayward, would you comment in the same light on Soviet attack submarines?

Admiral HAYWARD. On an average daily basis, [deleted] the Soviet Navy's attack submarines are kept at sea [deleted]. The U.S. Navy keeps approximately [deleted] at sea [deleted].

QUESTIONS SUBMITTED BY SENATOR JOHN W. WARNER

TRIDENT SUBMARINE

Senator WARNER. The President has requested funds in fiscal year 1983 for two *Ohio*-Class submarines. It is my understanding that this action was predicated on your judgment that problems with Electric Boat, which prompted this committee to recommend last year that the authorization of the tenth Trident submarine be deferred, have now been resolved. Is that the case and, if so, do you believe that the

authorization of these two submarines in this fiscal year is essential to the national security and to the maintenance of an efficient production base for these ships at Electric Boat?

Secretary LEHMAN. I regard the continued steady procurement of *Ohio*-Class submarines to be essential and extremely high in priority. This includes funding the remainder of the partially funded fiscal year 1982 submarine as well as the one previously programmed for fiscal year 1983. This is in accordance with the President's Strategic Modernization Program announced on October 2, 1981. This program is adequate for the orderly replacement of the aging Poseidon force, which will reach a period of block obsolescence in the mid-1990s. I do consider that the construction problems which caused earlier delays in delivery dates, which precipitated the Congressional action last year in deferring this ship from the fiscal year 1982 budget, have been largely resolved.

I also consider that the overall strategic program is affordable; it fits within the fiscal guidelines announced by the President. We can modernize our sea based strategic forces and still meet out other commitments.

TRIDENT II SCHEDULE

Senator WARNER. We have seen press reports that indicate that while the Navy continues to carry the D–5/Trident II missile's IOC as being 1989, you have been directed to attempt to accelerate that by as much as two or three years. Have you been so directed and, if so, how do you expect to accomplish such an acceleration? Would it be at the expense of meeting certain performance goals or does it simply entail accepting greater risk in the program?

Secretary LEHMAN. I was not directed to accelerate the program. I made the determination that certain acquisition savings might be achieved by reducing the development time and I have asked for a study to assess full cost savings and its effect on system performance and development risks as well as what increased capability would be made available by these earlier IOCs. The program has been in Advanced Development for over three years with a well established industrial and military team. With this program maturity in hand, we expect to do a certain amount of concurrency with the Full Scale Engineering Development and flight testing, and to eliminate development of a new RV. We believe that there will be no degradation of performance or increase in risk for a one-year program acceleration. We are now studying to determine what effect and cost savings may accrue from a two-year acceleration. At this point, a three-year program acceleration does not appear to offer an acceptable cost/risk trade.

TRIDENT EAST COAST CONSTRUCTION

Senator WARNER. The Committee is in receipt of your report concerning the need to commence construction of the East Coast Trident Submarine Base at Kings Bay, Georgia in fiscal year 1982. While you describe the numerous reasons for doing so, the report fails to note in any detail what the advese impact of deferring such construction to fiscal year 1983 might be. Would you provide such a discussion for the record?

Secretary LEHMAN. Orderly development of Kings Bay, or any large base, requires that a significant amount of horizontal construction be essentially complete before key vertical construction can commence. For example, fill material for site development, roads, electrical, water and waste water systems and related infrastructure must be in place before the facilities they support can be constructed. The fiscal year 1982 Trident Military Construction Program includes a significant amount of dredging, roads, and utilities. If this work is deferred from fiscal year 1982 to fiscal year 1983, the Trident Training Facility, Strategic Weapons Facility, and key waterfront facilities such as the dry dock cannot be started on schedule and thus will not be completed in time to support the first Trident D–5 submarine, without significant increase in cost for premium pay. That is to say, without additional funds to allow accelerated construction, the base will not have facilities ready to train the submarine crew, to produce and load missiles, or to refit the submarine prior to its first deployment in late 1989.

GAO REPORT ON TRIDENT CONSTRUCTION PROBLEMS AT ELECTRIC BOAT

Senator WARNER. As you may know, the General Accounting Office has circulated a draft report concerning the problems of cost growth and construction delays associated with submarine production to Electric Boat. This report is quite critical of the shipyard and, to a lesser extent, of the Navy. Are you familiar with this report and

its findings concluding that cost growth and schedule delays are likely to continue in the future and that the Navy is failing to provide adequate quality assurance supervision? Would you care to elaborate on this report for the record?

Secretary LEHMAN. The Navy has reviewed the draft copy of the report and made its recommendations to the General Accounting Office. The Navy agrees that there is some room for improvement in quality assurance programs, but disagrees in the conclusion that both Navy and Electric Boat Division programs are defective. That conclusion was based on a lack of understanding of the quality assurance program and the specific responsibilities of each party. Both the Navy's and Electric Boat's quality assurance programs are satisfactory. Submarines accepted by the Navy from Electric Boat are safe and reliable. Trial results for the seven submarines delivered in 1981 were excellent as substantiated by the Board of Inspection and Survey.

The Navy further disagrees with the conclusion that the Navy contributes to cost growth by knowingly entering into contracts at target costs which are understated.

The Navy agrees with the conclusion that the scheduled delivery dates for some of the remaining submarines under contract at Electric Boat "could be jeopardized" unless unfavorable manpower and productivity trends at Electric Boat are reversed. The Navy has been and continues to work with Electric Boat in adequately manning the shipyard for the remaining submarines under contract.

Although we are in disagreement with some of the conclusions and recommendations, the Navy will continue to maintain enhanced vigilance over the Quality Assurance system to ensure it remains effective. Further, the Navy is taking appropriate action to make certain that the contractor's management control systems meet contractual requirements.

VSTOL AIRCRAFT

Senator WARNER. In your statement you mention strong support of a joint service development for a true VSTOL medium speed aircraft. Later you mention a high speed VSTOL replacement for the medium assault helicopter. Are these two aircraft, in fact, one aircraft? If so, do all four services support the joint development as enthusiastically as you? What type of aircraft do you envision resulting from this effort?

Secretary LEHMAN. The two VSTOL aircraft mentioned in my statement are indeed one aircraft. The apparent confusion arises from the use of two different reference points while discussing the speed of the aircraft. If the aircraft is viewed in the broad spectrum of military aircraft, as is intended in the first instance, in can be termed medium speed. If the aircraft is viewed in relation to the rotary wing aircraft it would replace, the later text, it is in a relative sense, capable of much higher speeds.

The program is in its early formative stages. A group with representation from all four Services, led by a Navy captain, is structuring the Joint Service Operational Requirements (JSOR) document. In parallel, the Army is leading a technical assessment group that includes the four Services and NASA, and the Army is also leading a group addressing program office organization and inter-service agreements. If the cooperation and drive displayed in these efforts are indicative of service support, I would say it is very strong.

The technical assessment and the JSOR will have to be pulled together before we will know what the match is between available technologies and requirements. The specific type of aircraft is not known, but the VSTOL technology is clearly at hand to enhance combat capabilities by moving up in speed and range from the current helicopter force.

CHEMICAL WARFARE

Senator WARNER. There has been much discussion lately about chemical warfare—particularly the Soviet capability to engage in such action. The discussion, however, centers around ground warfare, with no discussion of such action in the naval environment. What plans, if any, are there to defend against chemical warfare—particularly aboard ship?

Admiral HAYWARD. The Soviets currently possess the capability of attacking our ships at sea with chemical weapons either singly or in consonance with other ordnance. To protect themselves, our ships are equipped with water washdown systems that can be used for gross topside decontamination. Individual protection for exposed shipboard personnel is provided by the use of gas masks and protective clothing. Recently, we completed an operational evaluation of a long range chemical detector and will commence installing it in the fleet in fiscal year 1982. Further, a two zone prototype collective protective system (citadel) will be installed in amphibious

assault ships (LHA) in fiscal year 1983. The policy is that commencing in fiscal year 1985, all new ship designs will include some level of collective protective system.

MODERNIZATION OF THE MARINE CORPS RESERVE

Senator WARNER. You indicate that the Marine Corps Reserve is going to be reorganized and modernized. While this is being done, are the Reserves going to be getting their fair share of the procurement dollars during fiscal year 1983?

General BARROW. Commencing in fiscal year 1983, we intend to embark on an extensive, phased seven year modernization plan to restructure and equip the ground, combat service support and aviation elements of the Marine Corps Reserve in order to provide those capabilities and functions needed to satisfy full wartime requirements.

NAVAL GUNFIRE SUPPORT

Senator WARNER. You have indicated in the past there was an urgent need for additional naval gunfire to support Marine amphibious operations. Would you comment on the overall adequacy of naval gunfire support available throughout the fleet.

General BARROW. I would be less than candid if I said that current gun systems meet Marine Corps needs for Naval gunfire support in amphibious operations. An amphibious assault requires all-weather fire support for pre-assault operations and for support of the landing force until its artillery is established ashore. The sharp reduction in Naval gunfire support capability in the past decade has left us with a current capability that is inadequate—both in range and lethality. Current five-inch guns with conventional projectiles cannot kill tanks and other hardened targets.

The five-inch GP, coupled with SEAFIRE (an electrooptical tracking and aiming device) would have regained some of the ground lost by the demise of major caliber guns in the Fleet. GP promises first round accuracy and kill of stationary and moving targets—including tanks. However, the GP and Seafire programs have been cancelled.

Bringing in the GP and Seafire programs would improve our current Naval gunfire capability. The reactivation of all four battleships will return major caliber guns to the Fleet but a new gun development for all platforms presently equipped with the five-inch gun should be pursued as a matter of high priority.

QUESTIONS SUBMITTED BY SENATOR WILLIAM S. COHEN

RECRUITING GOALS

Senator COHEN. When this committee held its Air Force posture hearing a couple of weeks ago, General Allen and Secretary Orr told us, if I recall correctly, that the Air Force has already recruited 80 percent of its goal for this fiscal year. Not all of those have come in yet, of course, but they are in the Delayed Entry Pool. Admiral Hayward and General Barrow, how are the Navy and Marine Corps doing in this regard?

Admiral HAYWARD. As of 31 January, Navy has recruited 62 percent of its goal for fiscal year 1982. This percentage reflects 30 percent actually brought on active duty and the remaining 32 percent who are in the Delayed Entry Pool.

During fiscal year 1982, Navy's intent is to build the Delayed Entry Pool by 5,943 over fiscal year 1981 levels. This initiative will result in attainment of Navy's manpower needs through more efficient recruiting and should lead to improved accession quality, reduced attrition and lower replacement and training costs. Budgeting of essential resources to achieve an improved Delayed Entry posture is critical in order to counterbalance the effects of the declining youth market and improvements in the economy which are expected to impact on Navy's ability to meet its recruiting objectives.

General BARROW. As of the end of January, the Marine Corps had accomplished 62 percent of its total force goal for fiscal year 1982. This percentage, as in the case with the Air Force, is the sum of those young persons who have already reported to the recruit depots and those who are in the delayed entry pool. In those terms, 28 percent have shipped and 34 percent are in the pool.

NAVY'S 10-POINT PROGRAM TO COUNTER DRUG ABUSE

Senator COHEN. Not long ago, I received a visit from an old friend of mine, Admiral Mulloy, who told me of a tough new 10-point program established by the Navy

to counter drug abuse. I applaud you for taking this initiative, Admiral Hayward. Could you trace for us the impetus for the program, its basic features, and the level of success of enforcement efforts thus far?

Admiral HAYWARD. The impetus for the Navy's tough new Ten Point Program stems from our genuine concern about the extent of drug abuse among our ranks. Last year the results of two surveys on drug abuse prevalence, one sponsored by DOD and a separate urinalysis survey sponsored by the Navy, indicated that we needed to take tougher actions to combat this problem.

The Navy's Ten Point Program is designed to improve our ability to control drug abuse through strengthened actions in the areas of preventive education and training, aggressive detection and deterrence, expanded assessment and evaluation, and improved treatment and rehabilitation for those with potential for continued useful service. The twin actions of leadership and peer pressure are key to the success of the program. The basic features of this program are as follows:

1. The Navy Drug Safety Action Program is a 36-hour, after-hours remedial education and motivational counseling program for identified drug abusers. It is modeled after the highly successful Navy Alcohol Safety Action Program.

2. New portable urinalysis kits have been purchased and distributed to the fleet to enhance drug abuse identification. These kits now have the capability to test for cannabis and, when their results are confirmed by certified DOD Drug Screening Laboratories, we can take disciplinary actions in appropriate situations. We will have approximately 270 of these portable urinalysis kits deployed by the end of fiscal year 1982.

3. The Limited Duty Officer/Warrant Officer Law Enforcement Program will provide the expertise to effectively administer all law enforcement aspects of an aggressive drug enforcement program.

4. An additional 200 Drug Detector Dog Teams will be fielded between fiscal year's 1981 and 1983, substantially increasing the detection and deterrence capabilities provided by the present dog teams.

5. A headquarters Inspection and Assistance Team of four experienced officers will provide much needed feedback information for a continuing Navy-wide assessment, and will help commands combat drug abuse by improving their local programs. This will also meet two DOD initiatives tasking the services to assess their headquarters staff size and to increase field inspection visits.

6. The Navy Alcohol and Drug Information System (NADIS) enhancement will add identification and law enforcement information to the Navy Alcohol and Drug Information System data base.

7. A total of 9 officer billets will be distributed to the major command staffs to provide Alcohol and Drug Abuse Control Officers (ADCO). Each ADCO will be responsible to his commander for all elements of the Drug Abuse Program, including detection, deterrence, identification, treatment, rehabilitation, education and prevention, assessment and evaluation.

8. Two enlisted Drug Abuse Specialists will be assigned at each Human Resource Management Center in fiscal year 1982 to assist commands in establishing viable drug prevention programs.

9. The Master at Arms Mobile Training Team initiative establishes a team on each coast that will provide technical assist visits, inspections, and classes in implementing an effective drug enforcement program afloat.

10. A more comprehensive educational program on the subject of drug abuse is being developed for implementation at all officer and enlisted accession points. This program is aimed at educating all new recruits and officer candidates on the dangers of drug abuse and the Navy's unyielding policies on this subject.

Our initiatives to date have been successful, however it is difficult to quantify the specific level of success of enforcement efforts at this time. In general it can be said all echelons of the Navy are supportive of this policy and are doing their utmost to make it work, to eliminate the menace of drug abuse. For instance, since June 1981 over 130 pounds of marijuana have been detected and seized by our Drug Detection Dog Teams. The number of drug related investigations opened by the Naval Investigative Service has increased by approximately 90 percent (from 2,500 to 4,700) during the same time frame. Investigations that are forwarded for disciplinary action have resulted in stiff penalties where warranted. The word is out to all hands that Navy is serious about eliminating drug abuse. We will help those who seek help and remove from the service those who won't change their drug abuse ways.

CONTRACT POLICY

Senator COHEN. The February 23 Defense Daily reported that Navy is adopting "firmer" contracting policies aimed at ensuring that contractors accept "an equitable share of the risk" on Navy Contracts. Briefly, what are the new policies, and what sort of cost savings do you expect to accrue from their implementation?

Secretary LEHMAN. In order to safeguard the taxpayers' dollars and ensure that private contractors accept an equitable share of the risk, much firmer contracting policies are being stressed. These include:

Using appropriate type and structure of contract forms.

Defining requirements so that industry can assume its fair share of the risk under a fixed-price or a fixed-price incentive environment.

Structuring sharelines and incentive-type contracts, on more mature development or production-type programs, so that risks and rewards are directly related to performance and cost savings.

Encouraging a 50-percent government, a 50-percent contractor shareline, both above and below target cost, on fixed-price incentive cost-sharing arrangements in mature programs, so that the contractor has the incentive to come in ahead of schedule and under cost to realize a 50-percent share of savings achieved. On the other hand, poor performance will result in immediate cost burdens being assumed by the contractor himself.

Closing contract loopholes that have historically provided a major source of claims disputes.

Monitoring more closely performance by Navy contract management personnel. This has included more delegated authority and responsiblility at the project manager level, with commensurate reward for good performance and penalty for not meeting goals.

Establishing a more disciplined approach toward meeting the government side of delivery commitments for government furnished equipment in major and minor procurement programs.

Establishment of a firm Navy policy to initiate claims for direct and consequent damages against contractors failing to live up to contracts.

Although the Navy anticipates significant cost savings from the implementation of these contracting policies, it is not possible to provide dollar estimates due to the nature of the policies which will influence contractor management and improved performance.

MILITARY COMPENSATION

Senator COHEN. We have made, as I noted earlier, improvements in basic pay and other beneifts within the past two years. Sea and sub pay have been increased, we have variable housing allowance and PCS improvements, and other incentives have been provided to join and remain in service. What compensation and quality of life items do you see as still needed to encourage quality individuals to enlist and reenlist?

Secretary LEHMAN. We certainly appreciate your strong support of the compensation initiatives enacted by the Congress in 1980 and 1981. These actions represent the fulfillment of a commitment to return military pay to adequate levels and provide relief from most of our previous compensation shortfalls. In order to continue to be able to attract and retain quality personnel, we support the following course of action.

First, the value of military pay and allowances must be sustained. This requires a pay adjustment mechanism that is acceptable to the Congress and the Administration and credible to our people. We are working with the other services to develop such a mechanism now. In other pay areas we are developing proposals to extend the aviation continuation pay bonus beyond its current 30 September 1982 expiration date, update and improve our career sea pay program, update the family separation allowance, nuclear officer incentive pay, the initial uniform allowance and the death gratuity. Some of these have not been updated in over twenty years. We are also seeking new programs to provide a career incentive pay for recruiters and an accession bonus for civilian engineers and scientists.

Second, we must maintain a stable benefits package that serves the manpower management needs of military force, and which is competitive with the norms in the parts of the civilian sector with which we compete in recruiting and in retention. To meet this need we must sustain the value and integrity of the military retired pay system, continue to support commissary and exchange systems to serve, especially our active forces, and provide an assured, reliable health care benefit that includes dental services. To meet this need we are proposing a dental care benefit

for active force dependents. Dental benefits are rapidly becoming a standard feature of civilian sector benefits are rapidly becoming a standard feature of civilian sector benefit plans. We must keep pace with that trend. Finally, we are developing a proposal to extend the current G.I. Bill beyond its current 1989 expiration date. Already, four year reenlistees in our career force have lost a year of educational benefits because of the 1989 expiration date. It is a career disincentive we would like to eliminate.

Third, we must continue to correct deficiencies in the expense reimbursement system. The Congress has taken major steps in this area in the past two years. The structure of the mileage allowance has been changed so that its rates can be set on the basis of accepted cost data and adjusted as necessary to keep pace with those costs without artificial caps. MALT—the mileage allowance in lieu of transportation—has similarly been corrected. The new temporary lodging expense allowance was created to recognize the costs of lodging and subsistence our people bear while seeking housing at new duty stations.

We must continue with these corrections. The per diem allowance is now a set rate allowance which continually lags the expenses of shelter and subsistence. We believe that the per diem rate, like mileage and MALT rates, should be based on agreed-upon cost data, and adjusted continuously to keep pace with those costs without artificial caps. We must create a per diem allowance for dependents that will adequately reimburse the shelter and subsistence costs of dependents as they travel. Additionally, we are seeking permanent authority to provide housing cost reimbursement for crewmembers of ships undergoing overhaul so that they may be adequately housed if their shipboard quarters become uninhabitable. Also, technical changes are needed to the VHA law to permit service secretaries to make reimbursement exceptions under unusual circumstances. Expansion of the current overhaul funded travel and dislocation allowance programs will be proposed as well as a new program to provide for storage of motor vehicles when a member is prohibited from taking his car with him to a new duty assignment. These changes will enable us to more effectively and more efficiently reimburse the expenses we impose on our people when we order them to move.

MANNING THE 600-SHIP NAVY

Senator COHEN. Even with improvements in recruiting and retention, the Navy will, I expect, have a difficult time fulfilling its manning requirements as we expand from under 500 ships to the 600-ship force which is envisioned. What do you project your manning requirements to be with a 600-ship force, and what steps are you taking to provide for the growth necessary in the petty officer force and in long-term recruiting projections?

Secretary LEHMAN. Navy is embarked on a balanced program which will simultaneously increase force levels [deleted] deployable ships by 1990, in order to meet a growing threat, and reduce the petty officer shortfall. Total enlisted and officer strength growth associated with the expansion of our fleet will be 80,000 and 11,000, respectively, from end fiscal year 1982 to end fiscal year 1990. We will eliminate the petty officer shortfall by fiscal year 1990 through sustained recruiting and enhanced retention. Navy will employ a dual-faceted management and compensation strategy to achieve these goals. Our management strategy includes: growing our delayed entry program recruiting posture; emphasis at the front end of the entry pipeline into specific ratings through Navy's A schools and on the job training plans to ensure the proper input into the various skills; tightened reenlistment and forced conversions to ensure that the proper balance between skills is maintained. Our compensation strategy requires that we sustain the momentum gained from the compensation related initiatives passed by the 96th and 97th Congress, as well as receive your continued support of compensation initiatives in the budget, pay comparability and resources planned in fiscal year 1984 and beyond. With your support, Navy can eliminate the petty officer shortfall and produce sufficient numbers of additional petty officers to man all petty officer billets associated with a 600-ship Navy.

"NIMITZ"-CLASS AIRCRAFT CARRIERS

Senator COHEN. In your 1983 shipbuilding plan you are requesting two *Nimitz*-class aircraft carriers at one time. Admiral Hayward mentioned that you could elaborate on the business reasons for this decision. Would you please do so now?

Secretary LEHMAN. The procurement strategy of fully funding CVN-72 and CVN-72 and CVN-73 in fiscal year 1983 delivers two vitally needed ships nearly four years sooner and saves about $750M when compared to the usual sequential pro-

curement strategy of funding the carriers individually in separate years. The Navy's acquisition strategy fully funds the ships' end cost in fiscal year 1983; thus the procurement strategy not only reflects the full-funding policy expressed by the Congress as well as by the Office of Management and Budget, but also will go a long way in strengthening vendor and contractor industrial bases. CVN-72 and CVN-73 will incorporate all the significant survivability enhancement features being incorporated into CVN-71 as well as those already inherent in *Nimitz* class carriers. These ships will provide the Fleet with two of its primary battlegroup building blocks.

The objective of the recommended CVN 72/73 Multiship Strategy is to obtain two new CVN assets in the most rapid, economic and efficient manner. The advantages of this strategy are:

Significantly improved delivery. 22 months earlier delivery for each ship over that attainable under a traditional one ship at a time acquisition strategy. Earlier delivery is made possible by better planning, scheduling and facility utilization.

$750 million savings resulting from:

Reduced escalation—approximately $300 million.

Economic order quantity savings from multiple ship set buys—approximately $250 million.

Reduction of startup, set up and other non-recurring costs—approximately $100 million.

Improved planning, manpower, utilization and productivity—approximately $100 million.

Encourages a stronger industrial base by improving vendor continuity and reducing production gaps at prime subcontractor level.

Assists in shortening CVN 71 construction by up to 14 months at a savings of approximately $74M.

DUAL SOURCING/COMPETITIVE ALLOCATION

Senator COHEN. We are obviously very interested in your concept of dual sourcing and what Dr. Gansler calls "competitive allocation" of Navy contracts.

How is dual sourcing proceeding, and what benefits do you see accruing to the Navy because of it?

Second, many of your proposals appear to be forms of competitive allocation. What success have you had in instituting them into your bureaucracy, and what safeguards have you applied to ensure that the allocation procedures are not abused?

Secretary LEHMAN. The Navy uses multiple sources for some of its shipbuilding programs: the SSN's, the FFG's and starting in fiscal year 1982, the CG 47. There are several benefits of having more than one source for construction of a ship class. First, competition is enhanced. Additionally, the shipbuilding industrial base is expanded for Navy construction and overhaul work. A second source provides the Navy with a degree of program flexibility due to the increased production surge capability which can be used to accelerate a program, increase the number of ships in a program or provide a fallback in the case of a natural disaster at one yard. While all of these aspects are beneficial, a program has to be suitable for second sourcing; that is, it has to be stable with a mature design and a sufficient number of ships in the program to warrant more than one shipyard.

We do not plan simply to allocate ship construction. Rather we intend to award contracts primarily on the basis of price as well as technical competency and proven performance and rarely with a view toward preservation of the industrial base.

CONVERT AND CHARTER

Senator COHEN. Both you and Admiral Hayward have mentioned the convert and charter programs as an innovative method of acquiring needed capability at less cost and in less time.

Specifically in these tight financial times, how do you achieve these savings, and what have been the initial results of your requests for proposals?

How do you answer the criticism that while the initial costs of the program, especially in the SCN account, will be lower, the total cost of the program to the taxpayer will be higher?

Secretary LEHMAN. The convert and charter program offers savings and advantages of several kinds. First, it relies on the U.S. Merchant Marine to provide essential services, thus helping maintain the viability of this important military support force. By doing this, the Navy can restructure the TAKX acquisition program from a $2.0 billion procurement over four years to a long-range charter over 20–25 years.

This frees resources now to build combatants, which cannot be provided any other way. Finally, we expect the charters to cost less than acquisition when expressed in present value terms as defined in OMB guidance. This is consistent with evaluation practice used in the Government and the private sector. All of these reasons support the conclusion that convert and charter is an appropriate method to use to acquire the TAKX.

Proposals are now being evaluated, so it is not appropriate to comment on them at this time.

Leasing or chartering is a widely-used procedure in Government and will cost less than a procurement program compared in discounted present value terms used for evaluating a series of payments. However, the contracts will have provisions which allow for purchase of the ships, should the determination be made that future purchase would become more appropriate than leasing. We believe this is unlikely to be the case, but it will be made possible.

MARITIME SUPERIORITY

Senator COHEN. Secretary Lehman, both you and the Secretary of Defense have made more than passing reference to the necessity for the United States to reacquire maritime superiority. What exactly do you mean by maritime superiority, why is it necessary, and what are its limits?

Secretary LEHMAN. As a nation with global commitments and interests, U.S. national security requirements extend far beyond its boundaries. Since WW II, we have protected these interests through a forward defense posture that has as its objectives the deterrence of threats and a rapid flexible response should deterrence fail. Strong naval forces are essential to our forward strategy.

Maritime superiority means we must be capable—and be seen as capable—of keeping our access secure to areas of our vital interests, and must be able to do this in the face of the most determined opposition. Maritime parity with our adversaries—a stalemate—is unacceptable because it is we who depend on the seas. In short, maritime superiority for the U.S. is a national objective—a security imperative, an essential condition for the success of any national security strategy.

Maritime superiority does not mean that we must seek to be omnipresent on all oceans, nor act as the world's maritime policemen. It means only that in those areas of our vital interests that we can prevail if challenged by the combined military threat of our adversaries. Geography, which strongly favors the U.S. and its allies, sets the parameters of our task. Essential to the successful achievement of this task is this Administration's naval rebuilding program along with the contribution of friends and allies, and the capabilities of U.S. air and land forces.

Maritime superiority provides the flexibility to offset enemy advantages and exploit their weaknesses. Thus, deterrence of general war is fortified by safeguarding the reinforcement and resupply of forward deployed units and threatening enemy vulnerabilities in widely separated areas. Maritime superiority is not matching a potential enemy ship-for-ship, sailor-for-sailor. It is rather the capability to use to our advantage those maritime areas of the world when and where required. Maritime superiority means having the confidence that those maritime tasks essential to our security can be accomplished successfully.

NAVAL GUNFIRE SUPPORT

Senator COHEN. In your prepared statement you talked about the firm requirements for all-weather naval gunfire support. You went on to describe your support for the five-inch, semi-active laser guided projectile. What, in your opinion, would be the impact of a failure to deploy this munition and the Seafire targeting system?

General BARROW. Our current naval gunfire capability rests solely on five-inch guns with conventional ammunition. This capability is adequate for soft targets within range (such as personnel, artillery positions or SAM sites), but these weapons are of limited range and cannot destroy armor and most hardened targets (bunkers). In areas of the world where we most expect to go, we know we'll face tanks—lots of them. It is imperative that our naval gunfire have the ability to defeat this type of threat.

Without Five-Inch SAL Guided Projectile (GP) and Seafire, naval gunfire is severely hampered. [deleted] and lacking the punch of larger caliber guns, GP promises first-round kills of fixed or moving armor. Seafire, an electro-optical tracking and aiming device aboard the firing ship, permits fire support with GP without the need for target designation by a source external to the firing platform. This is important when other designators (air or land-based) are not available on a continuous basis.

BLOCK OBSOLESCENCE

Senator COHEN. In your prepared statement you talked about the shortage of amphibious ships which prevents you from embarking all of our Fleeting Marine Forces, even when using ships currently in reserve status. This prevents you from meeting your MAF plus MAB requirement, and this is certainly cause for concern. Additionally, you said that we are soon approaching "block obsolescence" of our current amphibious ships. Would you please describe the magnitude and impact of this problem?

General BARROW. After the LHA class amphibious assault ships had been included in the Five Year Shipbuilding Plan, no new amphibious ships were planned for over a decade. This near vacuum, in the wake of an ambitious building schedule in the 1960's has created a situation wherein a great number of those amphibious ships currently in the active fleet will reach the end of their service lives in a short period. In the 19 year period between 1984 and 2002, 55 amphibious ships retire. Between the years 1999 and 2002 alone, 34 ships will reach the end of their service life. Thus the term "block obsolescence."

Using the 1982 baseline of 67 amphibious ships in the current inventory and considering all programmed and projected shipbuilding, [deleted]. Regardless of improvements in ship capacity and capability, the number of ships is less than that required to lift [deleted]. An increase in the projected new construction of amphibious ships is required merely to replace those currently in service.

155MM NAVAL GUN

Senator COHEN. In your prepared statement you said you "strongly supported continued exploration of the potential for the 155mm naval gun." Among the advantages you mentioned were increased range and effectiveness and commonality with Army and Marine Corps ammunition. Would you please go into further detail about the advantages of this gun?

General BARROW. The 155mm vertical load gun (VLG) is a conceptual naval gun that could be available in the near-term. Examination to date has revealed that the 155mm VLG concept is of low technological risk. The gun is significantly simpler than the current 5"/54 MK45 gun, has 40 percent fewer manufactured parts and, therefore, should be more reliable than the MK45. The 155mm gun would capitalize on use of Army developed artillery ammunition. The greater lethality of the 155mm family of ammunition would result in significant savings in time and round expenditure in attaining a given number of target kills. With guided projectiles, the proposed gun would have a range advantage over the MK45 in the Naval Gunfire Support role. Furthermore, the existence of a 155mm nuclear round would add a new dimension to naval gunnery. Not only would the reduced complexity of the 155mm VLG system result in a system of lower cost than the MK45, the system can be mounted in the same physical space. The 155mm VLG is a promising candidate for satisfaction of the requirement for a weapon to provide Naval gunfire support in amphibious operations.

QUESTIONS SUBMITTED BY SENATOR HOWARD CANNON

TRAINER AIRCRAFT

Senator CANNON. In your written statement you note that favorable trends in retention of pilots will result in savings in the development and procurement of trainer aircraft. What specifically do you have in mind, and what impact will this have on the VTXTS trainer program?

Secretary LEHMAN. The Navy pilot retention rate increased from 30 percent in fiscal year 1980 to 42 percent in fiscal year 1981 and is forecasted to increase further in fiscal year 1982. Recent pay initiatives including authorization for Aviation Officer Career Pay (AOCP) greatly assisted us in turning around the trend of declining pilot and NFO retantion. Several years of improved aviator retention will allow us to reach our pilot inventory goal. Once this is attained, a reduction in PTR will take place with a concomitant decrease in trainer aircraft requirements. The number of VTXTS aircraft we require in the future is partially tied to peacetime training rates and partially tied to wartime mobilization requirements. Good retention rates do not eliminate the need for VTXTS but do allow a more orderly and economic profile and do provide real savings to the taxpayer.

F/A-18

Senator CANNON. The F/A-18 has not yet demonstrated the specified performance for transonic acceleration and fighter-mission range. What impact will F/A-18 performance in these areas have on fleet operations and capabilities?

Admiral HAYWARD. The F/A-18 fighter configuration to which you refer includes two AIM-7's, two AIM-9's, full 20 MM ammunition, an no external fuel. In this configuration, the F/A-18 falls about 50 percent short of threshold range. F/A-18 fighter range, however, exceeds that of the Phoenix-equipped F-14. Consequently, the F/A-18, employed in the fighter role, can be integrated with other battle group anti-air forces without imposing new restrictions because of the minor range shortfall.

The transonic acceleration of the F/A-18 is not now, nor has it ever been, deficient. F/A-18 transonic and low supersonic acceleration are better than threat or current Navy aircraft.

The problem to which you refer is acceleration at higher speeds. The problem was recognized in 1980. Improvements were made and successfully tested. Acceleration was improved, but still did not meet threshold. After evaluating the demonstrated performance and acceleration of the aircraft at high subsonic and low supersonic speed, the Navy judged the F/A-18 to be superior for its design missions. As a result, the Navy recommended, and DOD approved, a change in the acceleration threshold to emphasize performance in the transonic region of the envelope. The F/A-18 meets the current threshold.

Since those decisions were made, the first F/A-18 operational squadron has flown against a variety of adversaries and proved significantly superior to each. The wisdom of not making more extensive and costly modifications to the F/A-18 has been confirmed.

RESERVE F/A-18 AND A-6E FORCE

Senator CANNON. Admiral Hayward, when will F-18's and A-6's be delivered to reserve forces under your current plans?

Admiral HAYWARD. The F/A-18 and A-6E are not presently programmed into the Reserve force during the FYDP years. In longer range plans, the F-A-18 would have been delivered to the Reserves as the active force completed their deliveries. There has been no long range plan to procure A-6E's for the Reserve force; however, the Naval Air Reserve program is currently under review with the full intention of now modernizing the Reserve tactical air squadrons as early as possible with both the A-6E and F/A-18 aircraft.

RESERVE F/A-18 PROCUREMENT

Senator CANNON. Admiral Hayward, what is the size of the F-A 198 procurement program now, and how many of these aircraft will be procured for Reserve forces?

Admiral HAYWARD. The F/A-18 program is currently structured on the procurement of 1366 aircraft. Of these, 201 are currently being procured for the Reserve force.

F/A-18 PROCUREMENT

Senator CANNON. Admiral Hayward, last year Admiral McDonald testified that 132 F/A-18's would have to be procured each year to allow a build up to 15 carrier battle groups. According to your written statement, you will not reach this level of procurement until fiscal 1986. Does this indicate a slower force-level growth than that contemplated by the Navy last year?

Admiral HAYWARD. No, the fiscal 1983 budget provides for the attainment of 13th and 14th air wings coincident with the delivery of U.S.S. *Vinson* and U.S.S. *Roosevelt* within the FYDP years as envisioned by the Navy in last year's testimony. The reference to 132 aircraft should have been in the context of the F-A-18 program growing up to and leveling at a procurement rate of 132 aircraft per year during the FYDP from the fiscal year 1982 rate of 63 aircraft.

MRASM

Senator CANNON. Does the Navy continue to support a development program for a ship-attack version of the medium-range, air-to-surface missile (MRASM)? When will such a missile by deployed?

Admiral HAYWARD. Yes Senator, the Navy support continued development of a dual-mode MRASM (ship-attack and land-attack). We have requested an appropirate level of RDT&E funding for this purpose in our fiscal year 1983 Budget. The deploy-

ment year of the Navy version is about fiscal year 1987; but this will depend considerably upon the Joint Cruise Missile Program Office's progress this year in developing the airfield attack munition for the Air Force's MRASM. Unless an effective munition against runways can be developed, the Air Force MRASM program may change. This in turn could casue a major change in the Navy MRASM program.

HIGH MOBILITY MULTI-PURPOSE VEHICLE

Senator CANNON. Can the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) be lifted by your medium lift helicopter?

If not, how would you propose getting it off ships in a helicopter assault?

Do you have or will you have enough heavy-lift helicopters to move HMMWV plus all the other heavy items (e. g., Light Armored Vehicles)?

General BARROW. The HMMWV can be lifted by the CH-53D assault helicopter; it cannot be lifted by the CH-46E or CH-53A assault helicopters.

By the late 1980s, there will be insufficient CH-53D helicopters to provide the required HMMWV lift for the Marine Corps amphibious and land war helicopter assault needs. Therefore, HMMWVs will be moved ashore using CH-53E heavy lift helicopters to augment the dwindling inventory of CH-53Ds.

The Marine Corps will have insufficient CH-53E heavy lift helicopters to provide the lift required for the new M198 155 Millimeter Howitzer Batteries, Light Armored Vehicles, Mobile Protected Gun Systems and other heavy items while augmenting the CH-53D lift of the HMMWV. Not including the HMMWV lift, the Marine Corps needs a total of six Fleet Marine Force CH-53E Squadrons to provide for heavy lift requirements in the late 1980s and beyond. The HMMWV lift, along with the infantry assault lift, is a medium lift aircraft mission. The joint Service development of the JVX advanced vertical lift aircraft will provide medium lift assault aircraft to fill the trooplift and HMMWV needs in the 1990s. Until the introduction of the JVX, which will be designed to meet the Marine Corps requirements, as well as those of other Services, available CH-53D and CH-53E helicopters will provide the only source of transport for the HMMWV, which will compete with the heavy items for vertical lift support.

QUESTIONS SUBMITTED BY SENATOR HARRY F. BYRD, JR.

AGES OF NAVAL RESERVE DESTROYERS

Senator BYRD. Provide the ages of Naval Reserve ships (destroyers) in commission today?

Admiral HAYWARD. There are four *Gearing* class and one *Forrest Sherman* class destroyer in the Naval Reserve Force today. The *Gearing* class destroyers—U.S.S. *Cone* (DD 866), U.S.S. *Orleck* (DD 886), U.S.S *William C. Lawe* (DD 763), and U.S.S. *Ellison* (DD 864)—are about 37 years old, U.S.S. *Edson* (DD 946) is 24 years old.

Four *Knox* class frigates trasition to the Naval Reserve Force this year. They are the U.S.S. *Miller* (FF 1091), U.S.S. *Lang* (FF 1060), U.S.S *Gray* (FF 1054), and U.S.S. *Valdez* (FF 1096). These frigates range from 9 to 12 years of age.

REPLACEMENT OF FRAM DESTROYERS IN NRF

Senator BYRD. What is the Navy's plan to replace these Naval Reserve ships?

Admiral HAYWARD. The Navy intends to replace all of the old and no longer mission capable *Gearing* class destroyers in the Naval Reserve Force (NRF) with modern *Knox* and *Oliver Hazard Perry* class frigates. The Navy's plan will call for an NRF ASW frigate force level of 24 ships to be achieved by fiscal year 1988. The first four of these frigates enter the Naval Reserve Force this year.

NRF 1052 COST COMPARISON

Senator BYRD. What is the total cost reduction in operating a 1052 frigate in the Naval Reserve as compared with a 1052 in Naval operating forces?

Admiral HAYWARD. Based on the tentative cost estimates, the cost of operating a FF 1052 Class frigate in the Naval Reserve Force is approximately 75 percent of the cost of operating the ship in the active forces. This does not include program startup costs for maintenance support, program administration, facilities and similar items. Actual operating costs are not yet available since the first two FF 1052's were transferred to the Naval Reserve only a little over a month ago.

NRF FFG 7

Senator BYRD. What is the total cost reduction in operating the FFG 7 in the Naval Reserve as compared with the FFG 7 in Naval operating forces?

Admiral HAYWARD. Actual cost comparisons between *Oliver Hazard Perry* Class frigates operating in the Naval Reserve Force and those in the Naval operating forces are unavailable since no FFG 7 frigates have yet transitioned to the NRF. Nevertheless, operating costs in the NRF are estimated to be about 80 percent of the costs of operation in the active force, not counting program startup costs. Some operating savings will be offset however by increased maintenance costs associated with a reduced manned ship. Program start costs will also reduce near year savings. It is important to note that the overall purpose of the NRF ASW Frigate Plan is to provide improved training to the Naval Reserve and a modern and capable ASW surge capability to Fleet Commanders in Chief in the event of mobilization. Cost savings that may accrue are a welcome by-product.

NRF FRIGATE MANNING LEVELS

Senator BYRD. Provide proposed manning levels for frigates assigned to the Naval Reserve—Active Duty/Reserve Personnel?

Admiral HAYWARD. The active duty/selected reserve manning mix for the *Knox* class frigates will be approximately 50 percent/50 percent. Due to the significantly different maintenance requirements of *Olver Hazard Perry* class frigates, the initial estimate is that these ships will be manned at 60 percent/40 percent active and selected reserve. A detailed analysis of manning versus maintenance requirements is being conducted at this time.

ADVANTAGES/DISADVANTAGES OF NRF

Senator BYRD. List the advantages and disadvantages of moving frigates to reserve status?

Admiral HAYWARD. The primary advantages of transitioning modern frigates to the Naval Reserve Force is to improve the operational training of our selected naval Reservists and to provide to our Fleet Commanders in Chief an ASW surge capability in the event of mobilization.

The primary disadvantages of transitioning these ships are the impacts on active operating forces by reducing the near term active ship asset available to meet fleet and deployment commitments.

NRF LAMPS MK-1

Senator BYRD. What is the plan for assignment of LAMPS I helicopters to Naval Reserve status?

Admiral HAYWARD. The plan calls for the stand up of three Naval Reserve LAMPS I squadrons located on the East and West coasts. These squadrons will contain a total of 36 aircraft and will provide the LAMPS capability for all of the NRF frigates.

LAMPS

Senator BYRD: What are the comparative costs for each status?

Admiral HAYWARD. The choice of existing Reserve squadron sites for LAMPS capability has been designed to minimize cost. The third squadron's site will be at increased cost due to requirements for hangar, support and maintenance facilities, and is now under study. Operating costs will be essentially the same for active and reserve LAMPS squadrons, but additional spares and supporting pack-up kits will be required at a cost of $1.563 million per deployable detachment.

NAVAL RESERVE AIRCRAFT

Senator BYRD. Is anticipated airlift for Reservist's to ship locations considered adequate?

Admiral HAYWARD. No sir, Reserve airlift capability is required during mobilization to augment the Navy's organic airlift requirements which cannot be satisfied by currently programed resources. We must phase out all of our C-118B aircraft by the end of fiscal year 1984 due to age and material condition. Additionally, existing Navy C-9B transport aircraft are heavily utilized in peacetime organic airlift and cannot be spread to meet the Naval Reserve's unique, time sensitive weekend airlift requirements. Replacement of the capability represented by the Reserve C-118B air-

craft is essential to ensure that Reserve training and critical skills are maintained in support of current wartime mobilization requirements and to ensure adequate Navy organic airlift capability upon mobilization.

C–118 AIRCRAFT

Senator BYRD. When are C–118 aircraft scheduled to fall out of the Naval Reserve?

Admiral HAYWARD. The last 6 C–118 aircraft fall out on 31 March 1985. The C–118 operating inventory is shown below:

C–118

Thru end of fiscal year:	
1980	27
1981	24
1982	18
1983	12
1984	6
1985	0

NAVAL RESERVE AIRCRAFT

Senator BYRD: What airlift aircraft are expected in the Naval Reserve for five-year force planning (both types and numbers)?

Admiral HAYWARD. The Naval Reserve airlift force will consist of the following types and numbers of aircraft under present plans:

	1983	1984	1985	1986	1987
C–9[1]	15	15	15	15	15
C–118	12	6			
C–131H	3	3	3	3	3
C–131F	1	1	1	0	0
CT–39G	4	4	4	4	4
UC–12	8	8	8	8	8

[1] 12 of these C–9 aircraft are dedicated to fleet support and generally not available for reserve airlift support.

Note.—Various alternatives to the replacement of the retiring C–118 force are currently under review.

ACCELERATED TRANSITION INTO NRF

Senator BYRD. What would be the major impact of advancing plans for increase emphasis on Naval Reserve ship increases?

Admiral HAYWARD. Advancing the scheduled transitions of frigates into the Naval Reserve Force would jeopardize the successful implemention of the plan. It would also severely impact on active fleet deployments at a time when the Navy is stretched very thin. The present planned time schedule takes into account a series of milestones which must be met to assure success. These milestones include the building and equipping of Ship Intermediate Maintenance Activities (SIMAs) to support frigate maintenance, dredging, pier and hotel service upgrades to berth the ships, recruiting of surface TARs for the ships and SIMAs, establishing an adequate demographic base to assist in SELRES manning, acquisition and standup of the LAMPS aircraft and support equipment, and transitioning the ships at the proper time in their overhaul cycle to assure that they enter the Naval Reserve Force in the optimum material condition. The planned time schedule also takes into account other factors such as increased shore staff augmentation and the impact of ship transitions on the depolyment schedule of the active operating forces.

The plan, as drafted, reflects the maximum rate of ship transition feasible to assure success.

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

STRATEGY FORMULATION

Senator NUNN. In response to a question I asked you last year about how the defense department was organized for contributing to national policies and strategic

thinking, you said, "The present organization is not ideally suited to provide for the incorporation of defense views in the formualtion of national strategy." You added that "it would be premature for me to advocate sweeping changes to our organizational structure at this time."

Do you have any recommenations now that you have been involved in this process for over a year?

What actions were or should be taken to insure that the DOD and Navy emphasis on a maritime strategy is incorporated into our overall national policies as coordinated in the NSC process.

Has there ever been any explicit statement of support at the White House for the maritime strategy concept?

Secretary LEHMAN. During the past year I have been greatly encouraged by improved avenues of internal communications which better permit the various agencies of the Department of Defense (DOD) to contribute both to the formulation of national policy and to strategic thought. Some very effective changes have been made to the organization; most with the advice of the service secretaries and the military leadership. The reorganization of the Defense Resources Board (DRB) in March 1981 and the new DOD planning process initiated in June 1981 together ensure that strategy and policy requirements are kept constantly before our planners and budget officials. Most importantly, the Service Secretaries have been restored to their proper management and policy positions, reversing 20 years of erosion of authority and responsibility to an anonymous OSD bureaucracy. Streamlining the management of the Planning, Programming and Budgeting System (PPBS) has revitalized the planning process and has made certain that the Secretary of Defense is provided the best possible advice of both the civilian and military professionals of the department.

The incorporation of a highly emphasized maritime strategy into our overall national policies as coordinated in the National Security Council (NSC) process continues to depend on the commitment of the administration and the vigor with which defense leaders press their views. I have made plain my view that the United States must be able to establish command of the seas in those areas where our vital interests lie. I feel that the Navy's and the nation's interests have been well served by the NSC.

The imperative of maritime superiority has been given strong White House support since President Reagan's Inaugural address. This has been articulated again and again in speeches and other public statements by the President, the Vice President and the Secretary of Defense who, in his Annual Report to Congress delivered on 8 February of this year, said, "We are determined to restore and maintain maritime superiority . . . The logical implications of a global strategy, combined with the need to defend our interests and support our forces in distant parts of the world, lead to a clear need for increased U.S. naval power."

LONG-RANGE, LAND-BASED AIRCRAFT

Senator NUNN. According to past testimony, one of the more severe threats faced by our fleet is that posed by the Backfire bomber armed with long-range cruise missiles. With the growth of the Soviet surface navy that you have described, why hasn't the United States pursued the employment of a long-range, land-based aircraft armed with long-range cruise missiles?

Secretary LEHMAN. The United States Navy believes strongly in long-range cruise missile capability and is moving quickly in deploying Tomahawk in fleet units. We have also been equipping our land-based P-3 ASW aircraft with the Harpoon cruise missile. Nearly eighty aircraft have that capability today, and we plan to expand the P-3 Harpoon capability to all active force aircraft.

While the proposition of "mirror-imaging" Backfire capabilities sounds interesting, on further inspection several flaws are apparent. These flaws center on time and distance problems, maintaining reliable and survivable access to forward bases, and limited endurance/reload capability.

The Soviet mainland is proximate to interests in Europe, the Middle East, and Western Pacific important to both the United States and the Soviets. Therefore, land-basing of anti-maritime aircraft makes great sense for the Soviets, and has been part of their policy before World War II.

For the United States to maintain secure bases for long-range aircraft implies these bases would be well removed from Soviet attack. Hence time and distance problems to potential targets would be significant. In order to forward base and reduce times and distances, we would significantly increase the access problem. This is because—like it or not—we have no way to guarantee reliable and continuous

access for land-based air, especially in areas like the Middle East. You recall, for example, our difficulty in 1973 in resupplying Israel. There is also some question of survivability of forward land bases in wartime.

There are, however, potential advantages of long-range, land-based air in maritime support. Both the Navy and Air Force have been working together for some time to explore these possibilities, which we believe will reinforce our comprehensive maritime efforts and, along with sustained real growth in funding for the Navy, accelerate the restoration of maritime superiority to the United States.

GLOBAL NAVAL CONFLICT

Senator NUNN. On page 6 of your statement you indicate that should conflict begin between the U.S. and Russian Navys "it will be instantaneously a global naval conflict." You also state that "if they initiate hostilities at sea it is they who will be put on the defensive." You describe this new strategy as offsetting allied disadvantages on land, to be deterring major war or as deterrence fails allowing us to fight at whatever level of intensity necessary and bring the conflict to termination on terms favorable to the United States.

Would you elaborate some of this concept? What role do nuclear weapons have in this naval strategy?

In the event of use of nuclear weapons at sea between naval forces would you envision U.S. retaliation against Russian land targets say, for example, if one of our carriers was lost to nuclear weapons?

Secretary LEHMAN. Deterrence of aggression requires an unambiguous capability and commitment to protect U.S. interests at any level of conflict. Maintaining this deterrence requires a forward presence by the Navy-Marine Corps Combined Arms Team capable of flexible and measured maritime response and credible support of deployed land-based units. Maritime superiority over the Soviet Union is essential to a prudent deterrent posture, to ultimate victory in war should deterrence fail and hence to the continued well-being and even existence of the nation. To do this we must maintain a survivable and capable nuclear deterrent [deleted] to make clear that in response to an attack the U.S. will take whatever measures are necessary to bring a war rapidly to a close on terms favorable to the United States.

Because of the nature of naval warfare mobility we believe the nuclear threshold is high, with neither side having an incentive to first use nuclear weapons.

National Command Authority decision is required [deleted]. The last part of your question cannot be answered generally because any such action would be completely scenario dependent. However, should such a decision be made, [deleted] nuclear weapons stand ready to execute assigned tasks. Sea-based [deleted] nuclear forces are very stable and survivable: (1) constant platform movement and dispersal complicate enemy surveillance, targeting, and defenses; (2) high successful penetration probability against enemy defenses due to lower radar cross-sections and terrain following missile flight profiles; and (3) greater afloat security from terrorism, sabotage, and capture.

600-SHIP NAVY

Senator NUNN. Admiral Hayward, I am confused about the 600 ship Navy. Last year you testified that the 600 ship Navy was shorthand for a "15 carrier battle group, 100 attack submarines, the capability to lift 1½ Marine Amphibious Force, appropriate support force plus adequate sealift (the latter not included in the 600 ship total)." You say that today we have 490 active fleet ships with 76 more under construction. Secretary Lehman says a year ago we had a 469 ship fleet. There are other references to battle force ships. Other reports show a total number of U.S. Navy ships at the end of this year will be 567 including reserve ships, miscellaneous support auxiliaries and so forth.

Would you please explain the Navy's bookkeeping system on ships and how the bookkeeping relates to the 600-ship Navy.

Will the five-year building program you show as an attachment to your statement build us up to a 600 ship Navy if it is fully financed? If so, in what year will this occur? If not how many additional ships would have to be built in the next five-year program to provide 600 ships by the year 2000?

Admiral HAYWARD. Before specifically addressing the Navy's bookkeeping system on ships and how that book count relates to the 600-ship Navy, I want to stipulate some definitions to keep the discussion in historical perspective. I have attached a chart which graphically depicts these definition changes.

Prior to 1976, ship count was traditionally based on an active fleet count only. At that time the Administration decided that, in addition to the active fleet, ships of the Naval Reserve Force and MSC-manned Naval Fleet would be included in ship count titled: Ship Operating Forces. Such ship totals included, for example, the "floating warehouses" of the near-term pre-positioning ship force at Diego Garcia. As important as these 13 ships are, they are not warfighting entities but rather represent important strategic mobility capability.

During the 1980 presidential campaign, and as embodied in the "sense of Congress amendment" of the fiscal year 1982 Defense Appropriations Act, reference to the 600-ship Navy was in the traditional context of active ships. While I do not believe the "ship operating forces" method of counting ships most recently in use accurately portrayed the strength of the U.S. Navy, neither do I believe we can ignore the real contribution to our warfighting capability and excellent material condition of certain of our Naval Reserve Force (NRF) and of MSC-manned ships. Thus, we have not included the old NRF FRAM I destroyers but do include the relatively modern NRF FF-1052 *Knox* class frigates; we likewise do not count the aging NRF MSO ships but will count the replacement NRF MCM ships to be built during the coming five year period. We do not count *Norton Sound* (AVM-1), nor *Dolphin* (AGSS-555), nor *Lexington* (AVT-16), for these ships have no true warfighting potential.

The current ship count methodology categorizes ships according to their potential contribution to the Navy's warfighting and support missions as listed below:

TOTAL BATTLE FORCES

Strategic forces, battle forces, support forces, and major mobilization force A.

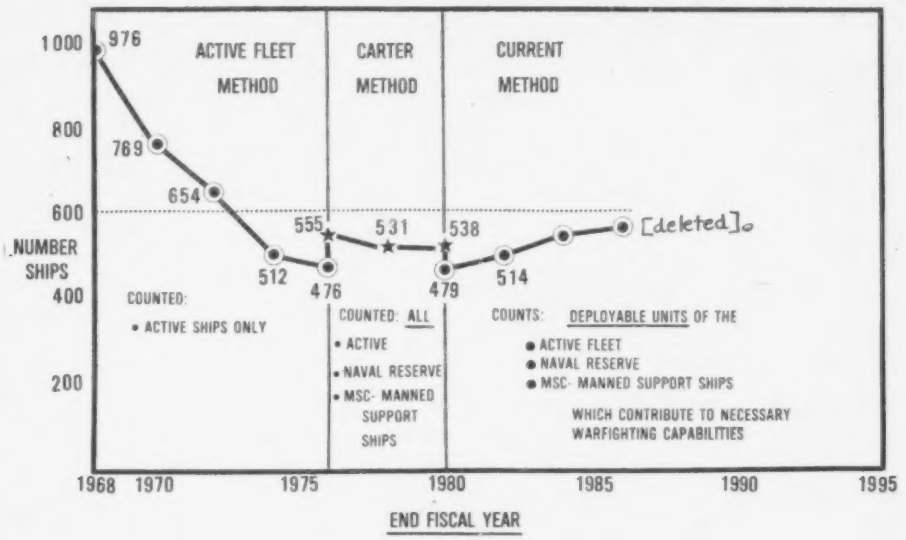
Designation of ships in the above categories does not depend on Active Fleet, Naval Reserve Force (NRF), or Naval Fleet Auxiliary Force (NFAF) status but on deployability and combat capability. In addition to the above ships, there are also U.S. Navy ships which do not directly contribute to deployable warfighting capability, and frequently are in poor material condition, and which are not counted when referring to building toward a navy capable of covering the three ocean responsibilities of the U.S. Navy in peace or in wartime operations. They do provide important peacetime and wartime indirect support capabilities. They are called:

LOCAL DEFENSE AND MISCELLANEOUS SUPPORT FORCES

Auxiliaries and Sealift, and major mobilization force B.

With the exception of the inclusion of NTPS/MPS/TAH ships, the sum of the Total Battle Forces and the Local Defense and Miscellaneous Support Forces equates to the ship operating forces. By the end of fiscal year 1982, Navy will have 514 ships in the Total Battle Forces category and 56 ships in the Local Defense and Miscellaneous Support Forces category. The present five year ship building plan will yield 600 Total Battle Forces ships by the end of fiscal year 1989, if fully funded.

NAVY FLEET SHIP COUNT



MRASM

Senator NUNN. Does the Navy continue to support a development program for a ship-attack version of the medium-range, air-to-surface missile (MRASM)? When will such a missile be deployed?

Admiral HAYWARD. The Navy supports continued development of a dual-mode MRASM (ship-attack and land-attack), and has requested an appropriate level of RDT&E funding for this purpose in fiscal year 1983. The deployment year of the Navy version is about fiscal year 1987; but this will depend considerably upon the Joint Cruise Missile Program Office's progress this year in developing the airfield attack munition for the Air Force's MRASM. Unless an effective munition against runways can be developed, the Air Force MRASM program may change; and this in turn could cause a major change in the Navy MRASM program.

NAVY STRATEGY/FORCE MISMATCH

Senator NUNN. Admiral Hayward, on page 5 of your statement you say that our naval commitments continue to grow well beyond NATO and the Far East and require us to confront Libya, Cuba, Central American insurgence, support in Africa and our vital interest in the Indian Ocean.

Admiral Hayward, is the growth in our commitments greater than, equal to or less than the growth in our Navy force structure provided by this five-year program? In other words, is our strategy outrunning our military capacity to carry it out?

Admiral HAYWARD. Your question goes to the heart of the matter. How is sufficiency determined? I believe it is important to differentiate between long range national strategy and present force deployment requirements. Our five year program, if carried out, will go far toward permitting the Navy to respond to operational requirements in future years in support of national goals.

The difference between our present military capacity, and projected requirements in peacetime results in increased operational tempo. As prudent planners, however, we must go beyond peacetime operational requirements to plan and build for wartime operations. I believe that our present programs, if carried out, will substantially enable the U.S. Navy to conduct prompt, effective, wartime operations.

Senator NUNN. On page 6 you refer to a 1½ Ocean Navy trying hard to meet three ocean commitments. Does that imply that our Navy is only half as big as our commitments at the present time? Please elaborate on what you mean?

Admiral HAYWARD. The reference to our "1½ Ocean Navy trying hard to meet three ocean commitments" is a convenient summary of our Navy's current extension. Given the vast area of the world's oceans we must patrol and the number of commitments we have to allies, our Navy is strained to carry out its essential peacetime missions and prospective wartime taskings. With the more recent requirement for an increased presence in the Indian Ocean, ship operating tempos have, over the past two years, exceeded those reached during the height of the Vietnam war. Thus in terms of prudent force levels relative to global commitments, our Navy today is indeed too small.

INDIAN OCEAN PRESENCE

Senator NUNN. Admiral Hayward, on page 3 of your statement you refer to the carrier battle groups in the Indian Ocean. Would you recommend we plan and fund to maintain two battle groups for the foreseeable future? If not, what is your recommendation?

Admiral HAYWARD. Current requirements in the Indian Ocean are to maintain one carrier battle group deployed there continuously and a second about 50 percent of the time. Funding should be in consonance with these requirements.

STRATEGY

Senator NUNN. Admiral Hayward, what was the Navy's recommendation of the number of aircraft carriers and carrier battle groups that was included in this Joint Chiefs of Staff recommendation?

Admiral HAYWARD. The Navy recommendation was [deleted] aircraft carriers forming the nucleus of [deleted] carrier battle groups.

Senator NUNN. Admiral Hayward, do you consider this Joint Chiefs of Staff recommendation a meaningful and carefully prepared document or is it simply a wish list?

Admiral HAYWARD. The Joint Chiefs of Staff submit to the Secretary of Defense on an annual basis their views on national defense objectives, policies, strategy and planning for the mid-range period (program plus four years), as a requirement of the Joint Strategic Planning System. Included in that submission is a statement of the force structure required to implement the military strategy with a reasonable assurance of success.

This force is based upon Unified and Specified Commanders' requirements for success within their theaters and represents the Service Chiefs' best military judgment of required force structure. As such, it is a planning goal which, if attained, would give a comfortable margin of superiority over the projected threat.

As I have previously testified, our current forces no longer provide a margin of superiority against the Soviet Union. Implementation of the current Navy program would restore some assurance that we could prevail on the high seas and in support of the land campaign. However, this programmed force would still fall short of the reasonable assurance force in size and capability.

The reasonable assurance force is our planning goal and, although costly, is considered responsible and achievable. It is not simply a wish list.

LAW OF WAR

Senator NUNN. What is the status of the Navy Law of War training?

Admiral HAYWARD. The present Navy Law of War training program was implemented in 1980 and reflects the practices and understandings arising from current international conventions and military experience.

The Law of War/Law of Armed Conflict program is categorized at four levels commensurate with individual and operational requirements:

Level A: Represents the minimum level of understanding of the law of war for all members of the Navy; to be received during accession training by all personnel.

Level B: The minimum level of understanding for personnel whose military specialty or assignment involves tactical (including tactical administrative) planning or direct confrontation with the enemy.

Level C: The minimum level of understanding for personnel whose military assignment entails significant tactical operational responsibility.

Level D: The minimum level of understanding for judge advocates whose military assignment entails advisory responsibility to tactical commands.

Level A is taught by instructors as a specific block of information separate from the Code of Conduct and the Uniformed Code of Military Justice to all Navy personnel at enlisted and officer accession points. Instruction and materials are developed

or approved by the Judge Advocate General. Standard lesson plans express in simple, succinct form those principles which manifest the overall humanitarian philosophy of the Law of War. Training addresses restrictions on conduct in combat; emphasizes prohibitions most deleterious to the conduct of combat operations; and highlights the personal responsibility of individuals whose conduct prejudices the discipline and order essential in combat, including the reporting of and prosecution of violators. A handbook on the Law of War is provided to each individual as reinforcement of instructor training. Trainees do not repeat Law of War training given at Level A.

Active duty enlisted personnel receive Law of War training at Recruit Training Centers located in Orlando, Florida, San Diego, California, and Great Lakes, Illinois. Active duty officer personnel receive Law of War training at: Officer Indoctrination School and the Officer Candidate School, Newport, Rhode Island; Aviation Officer Candidate School, Pensacola, Florida; and at the United States Naval Academy, Annapolis, Maryland. Naval Reserve Officers Training Corps enrollees are provided Level A training in their senior year at their respective schools.

At the Naval Academy, a fourth-year course entitled "Law and the Junior Officer" is required of all midshipmen. The Geneva and Hague Conventions are outlined, including their applicability to treatment of enemy and neutral vessels at sea. Additionally, three elective courses are offered which include instruction in the laws of war.

Level B is provided chaplain and medical personnel for understanding of their unique status of protection, and obligations under Law of War. Commensurate with their duties and responsibilities, other personnel such as fleet pilots, SEAL teams, Landing Party Indoctrination Course trainees and photoimagery interpreters, receive Level B. Career, intermediate, and top level officer development courses emphasize gaming exercises and scenarios rather than formal instruction for Level B understanding. At Level B, training is not generally Law of War per se. Rather, skills for compliance with Law of War in its practical applications are developed.

Students at the Naval War College receive eighteen hours of instruction in seven courses covering international law and law of war. An elective seminar is also offered, "Responsibility in Armed Conflict," which includes thirty hours of instruction in the methods/means of conducting war on land, at sea, and in the air. Responsibilities of the individual and the commander for failures of compliance with laws of war are addressed.

At the Naval Postgraduate School, an elective graduate course, "The Law of War," includes forty-four hours of instruction and provides four graduate credits.

Level C Law of War training is given on a special briefing basis by the Level D qualified judge advocate on that staff. Emphasis is on the individual's responsibility for adherence to Law of War in the implementation of operational plans and the engagement of forces.

Level D training is geared to the unique nature of Law of War and the need of the fleet, type, or afloat commander as well as at the major command and national command echelons for staff expertise in operational planning.

Senator NUNN. What type of classroom training are Navy judge advocates receiving and what type of training are other in staff billets that require this training receiving?

Admiral HAYWARD. Like all Naval personnel during accession training, all Navy judge advocates receive a one hour lecture and a Navy Judge Advocate General-produced pamphlet, "Conduct of Naval Personnel Under The Law of Armed Conflict," designed to give them sufficient understanding of the Law of Armed Conflict to minimize the international commission of serious offenses in combat and to ensure recognition that it is United States policy to conduct all military operation in accordance with that law. This is viewed as the minimum level of understanding for all members of the U.S. Navy and Naval Reserve.

The Navy has identified fifty (50) legal advisor/staff billets afloat and on major staffs that require the incumbent judge advocate to have detailed or special knowledge of the law of armed conflict. Each incumbent attends, as a minimum, a one-week specialized course on the law of armed conflict given either at the Army's Judge Advocate General's School at Charlottesville, Virginia, or at Newport, Rhode Island, in the Marine Corps Law of War course. Some of these judge advocates also hold Master of Laws Degrees in international law. In addition, beginning in the summer of 1982, an annual symposium on Military Operations and Law will be held to discuss contemporary operational-legal problems on a classified basis. Attendees will be drawn from the staff judge advocates of the unified and specified commands, their component commands, the numbered fleets, senior war colleges, and representatives of the Office of the Chairman of the Joint Chiefs of Staff, Offices of the

Judge Advocates General and the DOD General Counsel, who have special responsibility for the implementation of the Department of Defense Law of War (Law of Armed Conflict) Programs.

Senator NUNN. What is the Navy Judge Advocate General School doing to implement training programs and what are the future plans?

Admiral HAYWARD. Although the Naval Justice School, Newport, Rhode Island, has no assigned mission to implement training programs in the law of armed conflict, it has published a summary of the law of armed conflict as part of its Civil Law Study Guide for the reference of its students and graduates. During 1981 the Naval Justice School provided classroom space for the Marine Corps Law of War courses, and provided limited instruction (2 hours) in the law of armed conflict to Naval Reserve judge advocates attending the Refresher Course for officers. This latter instruction is expected to be repeated in the summer of 1982.

MARITIME SUPERIORITY

Senator NUNN. Admiral Hayward, what is maritime superiority? How will you know when you reach it? That is, how do you measure it before you have to use it? Given the Russian fleet today, what U.S. Navy structure would we need to be sure we had maritime superiority? How many more ships? Of what type? How many more aircraft?

Admiral HAYWARD. Maritime Superiority means the ability to prevail in conflict. If challenged, we must be able to prevail in those areas vital to our national interests. In order for our forward strategy to be effective we must be able to use the seas for our own economic and military purposes and to deny similar use to our enemies. In conjunction with other U.S. military and allied forces, our naval forces must be capable of destroying or neutralizing enemy maritime power wherever it may exist.

Any measure of our maritime capability must be viewed in relation to our most likely and dangerous advesary, the Soviet Union. In time of conflict, U.S. and allied forces must be capable of meeting the threat head-on where necessary, reinforcing our forward-based forces, and threatening enemy forces and capabilities in widely divergent areas. The capabilities we must have to accomplish these tasks are strongly influenced by the trends in Soviet naval force deployment. Given the Soviet fleet today, we face a military capability that threatens our forward strategy because we do not, with confidence, have sufficient force levels to place the Soviet maritime capabilities at risk. maritime superiority is not matching the Soviets ship-for-ship, sailor-for-sailor. It is having the confidence that those maritime tasks essential to our security can be accomplished successfully.

If the Soviets do not do anything signfificantly different from what we project today, I believe that execution of our five year shipbuilding and aircraft procurement plans as we submitted them to Congress will put us well on the road to achieving the kind of maritime superiority we need. However, I must emphasize that in my judgement force levels of fewer than fifteen carrier battle groups would incur high risks.

[Deleted.]

I must emphasize also that regaining maritime superiority hinges on sustained investment in the Navy. We must avoid stop and start, roller coaster funding, and embrace a long-term vision and policy of real growth in Navy budgets.

I am committed to the goal of maritime superiority, for I believe it is required to safeguard our nation. I believe the Sense of the Congress Resolution on the 600-ship Navy reflects a broad Congressional agreement and feeling of urgency in attaining that goal as well.

FORCES NEEDED FOR MARITIME SUPERIORITY

Senator NUNN. Admiral Hayward, has anthing changed in your estimate of the ship building and aircraft procurement programs needed since last year? Do you think this fiscal year 1983 program is adequate to retain maritime superiority? Do you believe there will be enough money to finance the increased programs for the future years of the five-year defense program?

Admiral HAYWARD. As I have previously stated, I am satisified that our ship procurement plans will provide for much needed improvements, and they will add significantly to our ability to meet the unique demands of maritime warfare. Our current five year ship building program will allow us to achieve the "600 ship" Navy goal in 1989. I believe that our fiscal year 1983 ship building program represents a broad qualitative improvement in our total warfighting capability. The plan is a

major turn around in shipbuilding and contrasts sharply with those submitted in the past several years.

On the Aircraft side, an average annual procurement of approximately 350 aircraft per year would be required to sustain a force consisting of 15 Carrier Air Wings, 3 Marine Air Wings, the current land based patrol force and all associated support, training and reserve forces. Procurement in excess of this sustaining rate, or approximately 380 aircraft per year would initially be required to attain the increased force. While there have been some cutbacks from forecast fiscal year 1983 levels, the fiscal year 1983 budget does provide for the attainment of the 13th and 14th air wings coincident with the delivery of U.S.S. *Vinson* and U.S.S. *Roosevelt* within the FYDP years.

I believe that this force is realistically attainable within the industrial base and affordable budget levels and would move us in the proper direction toward ensuring maritime superiority.

LIGHT ARMORED VEHICLES (LAV)

Senator NUNN. General Barrow, what is the status of the Marine LAV program and what changes in the program aquisition unit costs have occurred in the last year? What is the reason and what is the total procurement planned now compared to previous testimony?

General BARROW. The LAV program is currently in the Test and Evaluation (T&E) phase of the acquisition process. The four condidates (V150 and V300 from Cadillac Gauge, MOWAG-PIRANHA from GMC and Scorpion from Alvis) are being evaluated at Twentynine Palms, California to obtain data to be used in the source selection process. This data will help the Source Selection Authority, Major General Decker, TACOM, U.S. Army, identify the best vehicle to satisfy both the Army and Marine Corps requirements.

Our original funding requirements were based upon vehicle costs developed from market surveys of existing vehicles. At the direction of DOD, on 5 June 1981, we signed a Memorandum of Agreement with the Army establishing the LAV program as a joint program with Tank and Automotive Command managing the program. With this responsibility went the requirement to revalidate the program costs based upon the bids received from industry as a result of the T&E Request for Proposals (RFP). Based upon this new cost data, and in preparation for the fiscal year 1983 budget submission, a new acquisition profile was developed in December 1981. The cost estimates were extremely high, causing a reduction in the procurement quantity of LAVs from 744 to 503, which was unacceptable. A reevaluation of the data was directed.

In December and January, the LAV RM conducted a thorough review of the program funding. Basic vehicle costs were developed parametrically based on similar hardware and components. The results were then compared to prior foreign military sales contracts issued by TACOM and were found to be comparable and, therefore, acceptable.

We now project that our fiscal year 1982 funds will enable us to buy 60 LAVs configured as Light Assaults with 25 mm chain guns. The estimated unit costs for the 60 LAVs is about $500K. It must be emphasized, however, that all our funding figures are best estimates until the bids are received for the production contract (April 1982).

In testimony to this committee last year, it was projected that beginning with procurement in fiscal year 1982, it would require $481.5M to purchase 742 LAVs. As a result of the detailed program review mentioned above, it has been projected that we can buy 744 LAVs with $468.8M. The following profiles are povided for comparison.

MARCH 10, 1981

	Quantity	Millions
Fiscal year:		
1982	72	$36.2
1983	108	63.0
1984	128	80.7
1985	128	85.1

MARCH 10, 1981—Continued

	Quantity	Millions
1986	128	89.0
1987–88	178	127.5
Total	742	481.5

FEBURARY 25, 1982

	Quantity	Millions
Fiscal year:		
1982	60	$36.2
1983	134	89.7
1984	141	84.3
1985	116	85.1
1986	229	123.5
1987	64	50.0
Total	744	468.8

AMPHIBIOUS SHIPS

Senator NUNN. General Barrow, what is the amphibious ship component of the so-called 600 ship Navy? In other words we now have some 67 amphibious ships, enough to carry about one Marine Amphibious Force as I understand it.

What are the numbers of amphibious ships you feel are needed for the 600 ship Navy?

How many amphibious ships are in the five-year building program?

When will you achieve the objective for the amphibious part of the 600 ship Navy?

General BARROW. The current goal of the Secretary of the Navy is to develop sufficient amphibious lift to transport the assault echelon of a Marine Amphibious Force and a Marine Amphibious Brigade. Deciding upon numbers and types of amphibious ships to build in order to fulfill the lift requirement is the Navy's responsibility. However, in terms of the types of ships we have today, the lift objective would equate to about 83 nominal amphibious ships, after allowing for 15 percent to be in overhaul at any time. The introduction of newer, more capable ships would, of course, drive that number downward.

Twelve amphibious ships are planned through fiscal year 1987: 10 LSD–41 class and 2 LHD–1 class.

The shipbuilding plan in the five year program will not attain the amphibious lift goal. This plan will offset ship retirements in the 1980's (at end of 30-year service life) and provide some modest increase to the current lift capability. However, a larger obsolescence of amphibious ships faces us in the 1990's, and this coupled with the need to continue to build to the lift objective, requires that the current plan be continued—and indeed accelerated—as we progress through the succeeding years.

NAVAL GUNFIRE

Senator NUNN. General Barrow, could you give us your views on the Naval gunfire situation in support of the Marine Corps? How much do we have, what do we need and do we have a program to achieve it?

How essential is naval gunfire support to assault landings in a hostile environment?

General BARROW. Adequate naval gunfire support is essential to the success of an amphibious operation in a hostile environment. Power projection should never be undertaken without an all-weather, 24-hour fire support capability. Before artillery is established ashore, only naval gunfire can provide this support.

Today's naval gunfire capability is inadequate. It is left to a dwindling number of five-inch guns with conventional projectiles, which lack the range and lethality considered adequate to confront enemy forces and positions.

We need larger guns with greater range, accuracy, and lethality, [deleted] break up the mechanized counterattacks, and destroy enemy formations and emplacements that we might expect as Marines initially secure their positions ashore. There

is also a devastating psychological impact on the enemy of accurate, lethal fire that can stop his formations and destroy his positions—especially when some of the rounds have such pinpoint accuracy to destroy tanks with first-round hits.

The five-inch GP and Seafire (an electro-optical tracking and aiming device) would have regained some of the ground lost by the demise of major caliber guns in the Fleet. GP promises first round accuracy and kills of both stationary and moving targets—including tanks. However, the GP and Seafire programs have been cancelled.

Bringing in the GP and Seafire programs would improve our current naval gunfire capability. The reactivation of all four battleships will return major caliber guns to the Fleet, but new gun development for all platforms presently equipped with the five-inch gun should be pursued as a matter of high priority.

COBRA TOW HELICOPTERS

Senator NUNN. What is the current status of Marine Corps anti-tank helicopter capability in the active and reserve establishment, especially the Cobra TOW capability? What does the five year program have in terms of any improvements and would you support upgrading this capability in the Marine Corps Reserve?

General BARROW. The Marine Corps presently has [deleted] AH-1 helicopters. Of these, [deleted] AH-1Ts are TOW capable. Retrofit of an additional [deleted] AH-1Ts began in February ans will be complete by July 1983. Our AH-1J helicopters have no other real anti-tank capability although such weapons as 20MM cannon and 5" rockets may inflict some minor damage. Additionally, other Marine Aviation assets can be summoned and coordinated by AH-1s in the Forward Air Controller Airborne mode.

The five year program offers two significant improvements to our anti-tank potential. A modification program began this year which will provide the ability to deliver the modern technology Hellfire missile from all [deleted] AH-1s by fiscal year 1987, with a first squadron IOC in fiscal year 1986. Additionally, an fiscal year 1984/85 procurement will add 44 more AH-1s with both TOW and Hellfire capability. The Marine Corps would be most interested in upgrading this capability in the Marine Corps Reserve. The current Marine Mid-range Objective Plan calls for increased numbers of attack helicopters and Reserve growth is included in these plans. As AH-1Ts procured in fiscal year 1984/85 enter the active inventory, AH-1Js with a Hellfire capability will be transferred to the Reserves.

FLAG/GENERAL OFFICERS

Senator NUNN. As you know, DoD has proposed legislation repealing minimum grades for a number of statutory and other positions. There have been a number of questions raised about the Judge Advocate positions. What is the current situation in the Marine Corps in terms of Judge Advocate positions and what is the role of the Marine Judge Advocate? What is your view in terms of whether or not this position should be protected with minimum grade? Is there any reason why the Navy Judge Advocate should be protected and the Marine Judge Advocate should not be?

General BARROW. There are not now any statutorily mandated judge advocate positions in the Marine Corps, nor are there any minimum grades—for officers serving in a judge advocate capacity within the Marine Corps—established by law. However, the law does provide that the Secretary of the Navy may designate a Marine Judge Advocate to serve as the Judge Advocate General or Deputy Judge Advocate General of the Navy. There is an established billet for the Director, Judge Advocate Division, Headquarters Marine Corps which, since August 1969, has been filled by a judge advocate serving in the grade of brigadier general. The general officer grade allocated this billet is included within the overall number authorized the Marine Corps.

Insofar as the Director's role, he is a special assistant to the Commandant of the Marine Corps as well as his Staff Judge Advocate. Among his duties, in addition to the statutory duties provided for staff judge advocates in the Uniform Code of Military Justice, he

(1) Represents or provides representation for the CMC on matters within the cognizance of his division on, or as a witness before, committees at the Departmental, DoD; Congressional and National levels, including interservice committees for the development of policies and regulations relating to military law and justice under the cognizance of the Judge Advocate Division.

(2) Represents the CMC in the activities of the American Bar Association, Federal Bar Association and appropriate local bar associations.

(3) Coordinates and collaborates with the Deputy Chief of Staff for Manpower on the distribution of Marine Corps judge advocates and on specific billet requirements therefore; recommends personnel assignments for individual Marine Corps judge advocates legal administrative services officers, and enlisted legal services personnel.

(4) Advises and assists the DC/S for Manpower in the development of personnel policies relating to procurement, retention, training, schooling, and career planning for Marine Corps judge advocates, legal administrative services officers, legal clerks, reporters and other legal services personnel.

(5) Provides the Headquarters occupational field specialists for Marine Corps judge advocates, legal administrative services officers, legal clerks, reporters, and OccFld 44 personnel.

(6) Is responsible for reserve judge advocate Mobilization Training Unit programs.

(7) Serves as an advisory member of the UCMJ, Article 67(g) Code Committee, composed of the Judges of the Court of Military Appeals and the Judge Advocates General of the Armed Services.

Additionally, the Director, Judge Advocate Division maintains liaison with the Judge Advocate General of the Navy to ensure coordination in the administration of military law and in the development of policies relating thereto in the naval service. He also coordinates with the Judge Advocate General of the Navy on the certification and designation of Marine judge advocates and military judges.

In respect to protection with minimum grade, I see no need to establish minimum grades for Judge Advocates.

LAW OF WAR, RESERVE SUPPORT

Senator NUNN. What is your overall impression of how the Marine Corps Reserve establishment has supported the Marine Corps Law of War training program? Do you expect to continue this arrangement? What type of expertise is provided that is not available in the active establishment and does this point out a strength of reserve-active relationship?

General BARROW. The Marine Corps Reserve establishment has responded enthusiastically and effectively to the request by the Regular establishment for assistance in the development and improvement of the Marine Corps Law of War program. There has been a close and profesional working relationship between the Deputy Chief of Staff for Training, The Director of Judge Advocate Division, the Deputy Chief of Staff for Reserve Affairs and those reserve units responsible for the implementation of the Marine Corps Law of War program. That program is not static, but rather is dynamic and is undergoing continuous revision. The Reserve establishment supports the idea of its continuing improvement and has recently tasked another reserve unit (MTU OH-05 from Toledo, Ohio) to assist MTU DC-08 in this endeavor.

The expertise of the Reserve establishment has enhanced and will continue to augment that of the active force. The Marine Corps has a program by which a select number of active duty judge advocates may obtain their Master of Law Degree in international law. This program enables them to provide timely advice to major operational commands on the vast number of international law issues raised in daily contingency planning. MTU DC-08 contains members with prodigious experience in international law who, in their civiliam employment, provide day-to-day advice on operational issues to the Armed Forces; have served on U.S. delegations to international conferences and negotiations and are widely published on international law and law of war in professional journals. Their expertise has supplemented that available in the active force and is an excellent example of the strong relationship between the Marine Corps Reserve and active forces.

HELLFIRE MISSILE

Senator NUNN. What is the current status of Marine Corps thinking and plans in terms of using the Hellfire missile? What is your opinion on the capability and requirement for the Hellfire missile?

General BARROW. The Marine Corps is eager to attain a hellfire capability. A five year program began in fiscal year 1982 which will provide us an IOC for hellfire in our fist squadron in fiscal year 1987. We also have future plans to incorporate Hellfire on our OV-10 aircraft. Hellfire's increased stand-off range, improved armor penetration, and "launch and leave" features offer both increased effectiveness and increased survivability. The significant and growing armor capability of our potential adversaries make Hellfire a very important capability for the Marine Corps.

RESERVE AUGMENTATION UNITS

Senator NUNN. What is the Marine Corps Reserve Augmentation Unit concept? What determines how a unit or mission is selected for the RAU concept? If required, do you encourage additional support of the active establishment via the RAU concept? What is the role of the RAUs on mobilization,

General BARROW. A Reserve Augmentation unit serves as an administrative grouping of Individual Mobilization Augmentees at an active duty site for their ease in training, support and recall. IMA's are members of the Selected Marine Corps Reserve who are in a mandatory training status, but who are not members of Selected Reserve units. These are individuals who are preassigned to mobilization billets which must be filled on or shortly after M-Day and whose mobilization duties are of such a nature that the individuals must be available immediately upon mobilization. Mandatory training assemblies and annual active duty training are required. They will be issued mobilization orders which will be executed when authorized and directed. Examples of the purposes for which RAUs would be formed are: establishment of mobilization processing centers and stations; headquarters staff augmentation; and training and support base augmentation. In fiscal year 1981, over 200 individual Selected Marine Corps Reserve personnel were assigned to and trained in the billets which they will fill on mobilization. An additional 700 are anticipated for preassignment during fiscal year 1982. The active establishment enthusiastically supports the policy of preassigning members of the IRR to positions that assist the mobilization effort.

Upon mobilization the IMA's are imcorporated into the active structure and the RAU which served as an administrative entity to support the IMA Reserve requirements ceases to exist.

AV8–B

Senator NUNN. Are you satisfied with the current program as it relates to the AV8–B? What is your personal opinion as to the planned procurement rates and should this be adjusted based on Marine Corps requirements and economic considerations or are you satisfied with the current five-year plan?

General BARROW. I am completely satisfied with the AV8–B production program. The program is basically on time and on cost due to careful management, and full scale development (FSD) aircraft are proceeding to the Naval Air Test Center, Patuxent River, Maryland, in April 1982 to begin initial testing. I am somewhat disappointed in the planned procurement rates for the next five years. Due to fiscal constraints, planned procurement is 6 aircraft short of our requirement in fiscal year 1983, 24 aircraft short in fiscal year 1984 and 10 aircraft short in fiscal year 1985 for a total requirement shortfall of 40 aircraft. Naturally, if economic considerations would permit, I would like to see all, or at least part, of our 40 aircraft shortfall abated by increased procurement in fiscal year 1983–85. Not only would this allow the Marine Corps to meet its light attack requirements, but it would also keep total program costs down through more efficient yearly procurement rates.

LAW OF WAR

Senator NUNN. What is the status of Marine Corps Law of War training and to what extent are Marine Reservists providing direct support to active forces in this training? In an answer to a question last year on this subject, you identified a Law of War MTU that was tasked with certain projects. What is the status of that MTU's efforts in the past year and what is planned for the future?

General BARROW. The Marine Corps has continued to develop and improve its law of war program since my testimony last year. The program is very active, and our reservists have played a vital role in its development and implementation.

Under the operational control of the Deputy Chief of Staff for Training, Mobilization Training Unit (MTU) DC08 was established as a special reserve unit with unique expertise in Law of War. Its efforts over the past year have been extensive. Members of the unit lectured on Law of War at the Marine Corps Command and Staff College, at the Amphibious Warfare School, at the Advanced Communication Officer School, and at the Army and the Navy War Colleges. At the request of the Director of the Judge Advocate Division, the unit established a weeklong Law of War Course for new Marine Corps and Navy judge advocates which is taught four times a year at the Naval Education and Training Center and which has been rated as the leading Law of War Course offered by U.S. Armed Forces. MTU DC08 has written or revised the courses of instruction for the Marine Corps Noncommissioned Officer and Staff Noncommissioned Officer courses and for The Basic School. Mem-

bers of the unit gave a presentation on the Marine Corps Law of War program to an international course attended by military representatives of 17 nations. That presentation emphasized the Marine Corps belief in the consistency between a well-disciplined military force and respect for Law of War. The program was well received, resulting in numerous inquiries from other nations expressing an interest in the Marine Corps program. The role of MTU DC 08 has been active and is expected not only to continue but to expand in the future.

MARINE RESERVE KC-130's

Senator Nunn. What is the current Marine Corps requirement for KC-130's in the Marine Reserve and what are the plans to meet that shortfall? Would you support procurement of additional KC-130's for the Marine Corps Reserve?

General BARROW. The Marine Corps requirement, current capability and deficiency in KC-130 aerial refueler/intra-theater transport aircraft is as shown below:

Requirement	Current	Short
10 squadrons	4 squadrons (3 active) (1 Reserve)	6 squadrons.

As depicted above, the Marine Corps refueler/intra-theater transport capability is severely taxed and Reserve augmentation/reinforcement for this tactical mission in both peacetime and periods of contingency is of the highest priority.

Recognizing this deficiency, Congress directed the Department of the Navy to begin a phased program to complete the Reserve KC-130 squadron at Glenview, Illinois, which possesses only 7 of 14 authorized aircraft, and begin a second squadron. Expedited procurement of KC-130 aircraft for the Reserve was also directed. With the addition of the 4 KC-130's appropriated in fiscal year 1982, the shortage in the current squadron will be reduced to three. Funding to build a second squadron could not be accommodated in the fiscal year 1983 budget. This leaves a total of 17 KC-130's which must be procured to fill the Congressional mandate.

Congress further directed the Marine Corps to work with the Air National Guard to maximize shared space and minimize new construction costs at Stewart Airfield, New York, the proposed standup site for the second Reserve KC-130 squadron. In keeping with the intent of Congress, the Marine Corps has initiated preliminary discussions with representatives of the New York Air National Guard concerning Stewart Airfield. In those discussions, Marine Corps facility requirements have been identified to the New York Air National Guard for inclusion in their facilities master plan in the event that additional KC-130's become available to the Marine Corps Reserve. In addition, emphasis has been placed on the idea of colocation and facility sharing with the New York Air National Guard as well as maximun utilization of existing facilities and a minimum of new construction.

MARINE CORPS DEPENDENTS OVERSEAS

Senator NUNN. The Marine Corps currently has a force of 23,000 stationed in Okinawa. Traditionally, this has been an unaccompanied tour in 13 months for Marines.

It now appears that the Marine Corps wants to change their long-standing policy and allow accompanied tours to Okinawa.

This change in policy would require significant increases for family housing, other facilities and moving expenses.

Has this change in policy been approved? How much will this change in policy cost? Are any funds requested in fiscal year 1983 budget to carry out this new policy?

General BARROW. The change is presently being coordinated within the Department of Defense. Total costs and savings are being developed; it is probable that a large part of any increased costs would be for family housing funded by the Government of Japan under the Japanese Facilities Improvement Program. $5.6 million is budgeted in fiscal year 1983 for PCS costs associated with the increase in accompanied tours on Okinawa.

Despite these increased expenses there will be specific cost savings associated with reduced rotational moves. The primary efficiency associated with this policy change will be in the areas of reduced personnel turbulence, increased billet continuity and increased unit stability. These factors combined with higher morale should increase overall combat readiness.

MARINE CORPS DEPENDENTS OVERSEAS (OKINAWA)

Senator NUNN. How many military dependents are currently stationed in Okinawa. How large would this dependent population be if we went to accompanied tours?

General BARROW. Presently on Okinawa there are 835 accompanied Marines with 2088 dependents. Additionally, there are 430 Marines with 1075 non-command sponsored dependents.

It is estimated that the number of command sponsored Marine dependents would increase gradually to a total of about 12,700 when the change in accompanied tour policy is fully implemented. We intend to implement this policy in a phased manner over an extended period of time. Over the next two years, we intend to increase the number of accompanied tours by only about 250 each year.

This change in policy will have a major, positive impact on morale throughout the Corps. Fewer Marines will be separated from their families, and readiness of units in Japan, of units supported by Marines from Japan, and of the CONUS based Marine Corps will be enhanced as a result of the stability afforded by having more Marines on longer accompanied tours.

STRATEGY

Senator NUNN. Last year I asked you to describe the state of U.S. strategic thinking. You responded, in part, "I believe our strategies today lack a well-defined sense of purpose and direction." How would you respond to the same question this year and what is your view of the Joint Strategic Planning Document? Is this the JCS' best judgment as to what forces are necessary to support our national strategy and objectives or is it a "wish list?"

General BARROW. I believe we are showing signs of emerging from the strategic doldrums I referred to last year when I commented on our lack of a well-defined sense of purpose and direction. We are recognizing with greater clarity the resolute quality and the global character of the Soviet threat. This recognition has been the catalyst in the development of a greater understanding of the national needs and objectives on which our security framework is based. The JCS—recommended national military strategy and the force structure to execute it that are contained in the Joint Strategic Planning Document are developed to meet the national security objectives. The force requirement is not a wish list. It provides reasonable assurance that the defense establishment will be able to do what it has been tasked to do. The conventional force structure is based on a strategy that is part maritime, part continental. The objectives given us dictate it be so.

The JCS—recommended military strategy and force structure represent, therefore, our best judgment based on current guidance.

RESERVE GENERAL POSITIONS

Senator NUNN. As you know, Congress is considering legislation repealing certain minimum grades for flag and general officer positions. What is your view on the Marine Reserve positions in that context and would you support legislation that permitted additional Marine Corps reserve general officer positions and in what context? Would you support such legislation if these positions were not accountable in the active ceilings?

Do you believe that minimum grades are essential for general officers to perform satisfactory in these positions?

General BARROW. There is ambiguity in the current body of law concerning accountability for authorized military personnel on active duty.

Under the provisions of Title 10, U.S.C., Reserve flag and general officers assigned to Full Time Support (FTS) of the Reserve component count against the ceiling for the active force as authorized in 10 U.S.C. 131. However, 10 U.S.C. 152 (DOPMA) excludes Reserve colonels and below on active duty with Full Time Support from the authorized strengths of officers on active duty. Furthermore, the Report of the Committee on Armed Services (96–1462) stated that officers associated with administering and training the Reserves should not be chargeable against the number of officers on active duty in the standing force. Thus, there is an anomaly between the treatment of Reserve colonels and below on active duty for administration of the Reserves (10 U.S.C. 265/672(d)) and flag and general officers ordered to active duty under the provisions of the same sections of Title 10. This acts as a natural inhibitor against necessary increases in the Reserve flag and general officers required to organize, recruit, administer and train the Reserve components, and effectively precludes the participation of senior Reseve officers in higher level management positions in their respective components.

The Marine Corps would support legislation to amend Chapter 32 of Title 10 which would provide that a Reserve general or flag officer serving on active duty under section 264, 265, or 672(d) of this title shall not be counted against any ceiling established by law or by administrative action (including any ceiling imposed through a limitation on appropriations) on the total number of general and flag officers who may be serving on active duty in the Army, Navy, Air Force, and Marine Corps. The flexibility to increase the number of general officers on active duty in this manner would be useful. Further, the Marine Corps supports legislation that prescribes no minimum grade in law for these positions.

Question Submitted by Senator J. James Exon

BATTLESHIP REACTIVATION

Senator Exon. The original cost estimate, provided last March, for reactivation of the battleship *New Jersey,* was $247 million. The current estimate is $326 million, a 30 percent increase. Last year the Navy estimated the cost of reactivating all four battleships at about $1.3 billion. What is the current estimated cost for reactivating all four battleships?

Secretary Lehman. The amount of $247 million was requested in the President's fiscal year 1981 Supplemental and fiscal year 1982 Amended Budget Requests. Subsequent to that time certain changes to the modernization package and adjustment of the repair man-day estimate resulted in the current $326 million estimate, not including outfitting. Modernization enhancements include the addition of a modern air search radar (AN/SPS-49), four additional quadruple Tomahawk armored box launchers, aviation facilities to accommodate 3-4 helicopters, and essential habitability improvements for the crew. In April and May of 1981, I made a commitment to the Congress that *New Jersey's* reactivation and modernization would be accomplished for $326 million SCN, plus $3M RDT&EN, within twenty-one months. I am pleased to report that the *New Jersey* project is proceeding on or ahead of schedule and within budget.

Based on the President's fiscal year 1983 Budget Request, the estimated cost for reactivating and modernizing all four battleships follows:

[In millions of dollars

funding	Fiscal year—					
	1981	1982	1983	1984	1985	Total
SCN:						
BB 62	89.0	237.0				326.0
BB 61		88.0	323.4			411.4
BB 63			94.0	376.2		470.2
BB 64				103.8	354.7	458.5
Total SCN	89.0	325.0	417.4	480.0	354.7	
Design:						
BB 62	2.0	1.0				3.0
BB 61	1.0	3.0	2.0			6.0
BB 63			4.0	2.0		6.0
BB 64				4.0	2.0	6.0
Total design	[1] 3.0	[1] 4.0	[2] 6.0	[2] 6.0	[2] 2.0	
Total						$1,687.1

[1] Budgeted in RDT&EN.
[2] Budgeted in SCN.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

STEAMING DAYS

Senator LEVIN. Last year, the Navy's justification book for the Operation and Maintenance component of its fiscal year 1982 budget stated the following about steaming days:

The fiscal year 1982 budgeted average operating tempo of 39.7 days per quarter is still below the optimum of 43.6 days per quarter desired by the Fleet Commander for higher readiness."

Admiral Hayward, do you consider steaming days per quarter to be a meaningful and necessary ingredient to maintain fleet readiness?

Admiral HAYWARD. Yes, I do; it must be realized that optimum steaming days per quarter represents a benchmark, and there are a number of other factors which must be considered such as crew experience and training, maintenance and spare parts. Given those in appropriate quantities, experience has shown that about 43 days per quarter is the optimum level over the long term.

Senator LEVIN. The Second and Third Fleets, on our East and West Coasts respectively have both suffered reductions in steaming days per quarter in the fiscal year 1983 budget. Don't these cuts represent reductions in operational training time afloat? How will these reductions in steaming time affect the overall readiness of these two fleets?

Admiral HAYWARD. The decline in fleet steaming does not represent a significant change in fleet deployments, in the emphasis on training or in the material condition of the fleet. The fiscal year 1983 President's Budget will fund essentially the same OPTEMPO as in 1982 for deployed units. The non-deployed ship OPTEMPO has been reduced by approximately two days per quarter to provide increased inport time for crews following long deployments. The deployment schedule has been intensive since late calendar year 1979 requiring many skilled personnel to take back-to-back deployments and most crews to remain deployed for longer than normal durations. The average fiscal year 1983 OPTEMPO will equate to 97 percent of the fiscal year 1982 level, or approximately 40.2 days vice 41.6 days per quarter.

The reduction will necessitate piggy-backing of less critical exercises, some reduction in hours devoted to various ship evolutions and other changes not critical to ship and crew readiness which in our judgment are not critical to ship and crew readiness which in our judgment are not expected to degrade fleet unit readiness, at least over the short term.

Senator LEVIN. Admiral Hayward, would you support an increase in the Navy's average steaming days per quarter to 43.6? Why or why not?

What funding would be required to support a 43.6 days per quarter fleet steaming days operating tempo?

Admiral HAYWARD. I believe our budget reflects the optimum balance between readiness, sustainability, modernization and force structure given our fiscal constraints. If additional resources were available, I would support increasing OP TEMPO; however, I am not pushing for this since I feel that we can live with a lower OPTEMPO in the short term in the interest of allowing our sailors more inport time following long deployments.

The deployed fleets are currently operating at optimum levels. To fund the non-deployed fleets from the current fiscal year 1983 level of 26.9 days per quarter to 33.9 (which results in an average of 43.6/qtr) would require an additional 181 million in fiscal year 1983.

SOVIET MARITIME SUPERIORITY

Senator LEVIN. Admiral Hayward, a year ago you answered a similar question for the record, "I believe any reasonable estimate of the naval balance between the United States and Soviet navies is uncertain. I . . . cannot, with confidence, state that the Soviets have acquired a significant margin of superiority." Yet in today's statement, you agree with Secretary Weinberger that we must "restore and maintain maritime superiority of the United States." Are you saying that the Soviets are superior?

Admiral HAYWARD. First, Senator, let me set the record straight in that the quotation you have been given does not accurately reflect what I said about the Soviet/U.S. naval balance. What I did say was that "I cannot, with confidence, state that the U.S. Navy possesses a margin of superiority. That is not to say, however, that the Soviet have acquired a significant margin of superiority. I do not believe they have."

A year later, my assessment has not changed. The balance is too murky to judge one navy stronger than the other for the missions assigned to each. Both sides have strengths; both sides have weaknesses, and both navies are improving. The rate of improvement for the Soviet navy, however, has vastly outstripped the rate of our own improvements; thus the balance has been shifting constantly for several years. It is this fact that accounts for the gradual loss of our clearly superior position in the 1960s and early 1970s. It is this fact that leads me to agree with Secretary Weinberger that we must "restore and maintain" maritime superiority for the United States.

We should now focus on trends in the naval balance, and assure that we reverse the adverse nature of those trends. It is critical that we do so. The fiscal year 1980 and fiscal year 1981 budget data points clearly established trends for the United States Navy in the direction of maritime inferiority. I could not support the last Administration's final budget because it established a third data point in an unacceptable trend towards maritime inferiority for this country.

Happily, today I am no longer in that position as the 1982 budget that was amended and passed by Congress and the 1983 budget that is before you now represents a sizable naval investment and will lead us to a strong Navy. If the growth represented by the five-year program of naval investment that has been submitted with this year's budget is sustained, it will clearly move us in the direction of restoring maritime superiority for the United States.

SWAP NAVIES WITH SOVIETS?

Senator LEVIN. Would you trade your service—its weapons, personnel, missions, entire range of capabilities, strengths and weaknesses—for its Soviet counterpart service?

Admiral HAYWARD. I certainly would not trade the United States Navy for the Soviet Navy. We have now, in my opinion, the nucleus of the right kind of Navy to carry out our mission and support the national strategy. What we need is more ships, aircraft, and weapons so that we might better safeguard the United States against a dedicated, implacable, and increasingly capable adversary. I believe we are headed in the right direction. What we need is sustained support to achieve our goal of maritime superiority.

SSBN SECURITY

Senator LEVIN. Admiral since your appearance before the Committee last year, has there been any change in the Soviet threat to our strategic ballistic missile submarines in terms of greatly improved Soviet antisubmarine warfare capabilities?

Admiral HAYWARD. There has been no change in our assessment of the Soviet threat to our strategic missile submarines. We continue to believe that Soviet antisubmarine warfare (ASW) forces are not now an effective counter to U.S. SSBNs. We believe that Soviet ASW capabilities will improve, but that introduction of the TRIDENT missile and TRIDENT submarine with the corresponding expanded operating areas and improved acoustic quieting will provide continued survivability. [Deleted.]

Senator LEVIN. Does the Navy still consider these missile submarines to be invulnerable againt the Soviet threat at the present time and does the Navy still expect that these submarines shall still remain invulnerable against the Soviet ASW threat until at least the end of the next ten years?

Admiral HAYWARD. [Deleted.] Incremental improvements [deleted] could improve Soviet anti-submarine warfare (ASW) capabilities. Soviet sensor research could eventually provide some level of effectiveness against our current nuclear submarines. Our plans to counter this possible increased effectiveness include the deployment of the Trident submarine and the Trident missile. The longer range Trident missile will permit operation of our submarines in more than ten times the present patrol area size thus increasing Soviet search areas significantly. The Trident submarine incorporates [deleted] improvements [deleted] to reduce detection and complicate search by advanced sensors. The larger Trident submarine also pemits installation of advanced countermeasures equipment as potential threats become identified. Advances incorporated into the Trident weapons system will provide increased flexibility in the range of available patrol depths and speeds. It may become increasingly important for our submarines to operate at unrestricted speeds and depths as advanced sensors are deployed. Our SSBN Security Program and the im-

provements in survivability we have put into our submarines and weapons sytems are expected to provide sufficient and flexible response to future threats which might develop from Soviet research and provide for continued survivability of our SSBN force.

NAVY TOA AND OUTLAYS FISCAL YEAR 1970–1987

Senator LEVIN. Please provide for the record an annual breakout—in current and constant (fiscal year 1983) dollars—of the TOA and Outlays contained in the Navy budget from fiscal year 1970 through the end of the fiscal year 1983–fiscal year 1987 program in the following accounts: Procurement, Shipbuilding, Personnel & O&M. Please also provide an annual end-strength for the Navy for each year of the fiscal years 1983–87 program in military personnel.

Admiral HAYWARD. The requested information is contained in the following tables:

NAVY TOA AND OUTLAYS

[In thousands of dollars]

	TOA		Outlays	
	Current	Constant (fiscal year 1983) [1]	Current	Constant (fiscal year 1983) [1]
Milpers (MPN, RPN):				
1970	4,995,895	15,159,711	5,003,520	15,179,457
1971	4,867,302	13,718,610	4,909,743	13,823,901
1972	5,289,550	13,039,634	5,268,241	12,988,649
1973	5,693,655	12,321,346	5,610,447	12,130,641
1974	5,780,802	11,720,920	5,698,445	11,543,655
1975	6,022,465	11,456,580	6,074,717	11,556,243
1976	6,106,525	11,052,768	6,023,968	10,902,520
1977T	1,508,401	2,700,339	1,499,693	2,684,690
1977	6,304,058	10,839,531	6,236,034	10,721,880
1978	6,647,883	10,707,903	6,598,298	10,627,452
1979	7,009,865	10,670,601	6,981,622	10,627,860
1980	7,616,707	10,817,986	7,519,994	10,681,692
1981	9,227,034	11,168,542	9,227,583	11,169,166
1982	9,618,826	11,532,757	9,553,000	11,432,193
1983	11,220,200	11,959,079	11,120,200	11,893,923
1984	11,566,335	12,218,158	11,532,179	12,166,887
O&M (OMN, OMNR):				
1970	5,222,560	15,032,639	5,108,803	14,672,609
1971	4,946,264	12,763,336	5,072,117	13,062,068
1972	5,273,513	13,730,070	5,307,958	13,801,251
1973	5,547,662	13,383,164	5,309,920	13,067,359
1974	6,751,680	14,591,916	6,111,716	13,637,431
1975	7,518,327	15,027,327	7,546,054	15,083,146
1976	8,587,525	15,821,313	8,208,286	15,209,975
1977T	2,219,377	3,599,947	2,034,431	3,368,033
1977	9,970,779	16,883,836	9,319,627	15,899,520
1978	11,344,919	17,687,589	10,626,631	16,779,597
1979	12,274,133	17,749,377	11,584,296	17,012,534
1980	15,417,939	19,003,139	14,729,991	18,475,169
1981	18,334,619	20,344,083	17,423,553	19,521,022
1982	20,159,729	21,433,493	19,178,200	20,426,721
1983	22,818,800	23,103,760	21,837,200	22,135,823
1984	23,286,046	22,771,520	22,879,092	22,239,084
Shipbuilding:				
1970	2,416,749	8,117,469	2,065,660	7,265,008
1971	2,241,807	6,662,056	2,113,573	6,833,248
1972	3,013,800	7,920,308	1,977,649	5,942,046
1973	2,884,673	6,888,413	1,981,647	5,623,044
1974	3,501,800	7,639,631	2,104,419	5,259,787
1975	3,105,454	6,190,445	2,626,530	5,693,209
1976	3,855,400	7,033,038	2,606,141	4,886,905
1977T	447,000	739,460	660,591	1,212,764

NAVY TOA AND OUTLAYS—Continued

[In thousands of dollars]

	TOA		Outlays	
	Current	Constant (fiscal year 1983) [1]	Current	Constant (fiscal year 1983) [1]
1977	5,722,900	9,256,998	2,840,524	4,926,555
1978	5,725,481	8,415,223	3,047,606	4,876,839
1979	5,072,638	6,810,272	4,553,451	6,651,476
1980	6,464,370	7,997,395	4,221,833	5,602,869
1981	7,617,000	8,719,982	5,217,724	6,194,447
1982	8,902,300	9,510,472	5,414,300	5,869,911
1983	18,648,300	18,648,300	6,295,000	6,295,000
1984	12,455,706	11,680,744	8,155,309	8,332,587
1985	16,752,625	14,747,578	9,072,326	8,322,448
1986	20,391,849	16,857,242	10,600,985	8,845,549
1987	28,074,571	21,791,779	13,168,763	10,158,608
Other procurement (APN, WPN, OPN, PAMN):				
1970	4,689,838	11,762,119	5,280,601	13,138,058
1971	4,966,343	11,857,158	4,837,902	11,476,074
1972	5,661,271	12,802,516	5,014,925	11,421,063
1973	5,895,906	12,512,763	4,845,528	10,578,725
1974	5,121,425	10,522,958	4,794,040	9,898,610
1975	5,086,166	9,766,817	5,319,470	10,198,731
1976	5,937,229	10,677,679	5,239,088	9,460,133
1977T	1,323,805	2,208,469	1,234,727	2,153,931
1977	7,123,242	11,668,889	5,393,604	9,037,217
1978	7,926,958	11,926,901	5,843,318	9,162,570
1979	8,827,926	12,070,804	6,838,874	9,886,154
1980	8,910,316	11,094,313	7,806,292	10,302,096
1981	12,022,296	13,793,317	9,227,906	10,897,070
1982	16,031,677	17,121,621	10,812,100	11,680,447
1983	19,454,056	19,454,056	13,997,300	13,997,300
1984	23,091,170	21,694,814	17,350,749	16,250,799
1985	28,440,330	25,200,334	20,980,934	18,392,653
1986	30,692,697	25,673,864	25,017,954	20,695,649
1987	32,985,243	26,028,475	28,176,440	22,003,571

[1] May include contingencies.

Note.—OUtyear data for O&M and Milpers TOA and outlays not approved for release by the Secretary of Defense.

NAVY END STRENGTH

	Fiscal year—				
	1983	1984	1985	1986	1987
Active	569,200	581,300	595,600	601,400	603,100
Reserve	105,828	106,515	107,062	109,838	113,478

LARGE DECK CARRIERS

Senator LEVIN. What is your present estimate of the survivability of our large deck carriers in a non-nuclear war with the Soviets? Do you expect this survivability level to rise or fall over the next decade?

Admiral HAYWARD. Carrier vulnerability and survivability have been treated exhaustively in numerous studies conducted by the Navy. These show that large deck carriers are as invulnerable as our naval architects and engineers can make them, and, by virtue of their mobility, they are certainly less vulnerable and more survivable than any other force element in the nation's inventory with the exception of submarines. With the sustained support of Congress, the programs we are pursuing

in improved air defense, ASW, and other warfare areas will ensure that survivability of carriers continues to improve.

SOVIET THREAT

Senator LEVIN. What major advances do you expect over the next decade in the Soviet threat that would degrade carrier survivability?

Admiral HAYWARD. We see several major developments over the next decade which will improve Soviet capabilities. These would degrade carrier survivability only if we do not continue our program of weapon and sensor development, procurement, and improvement. [Deleted] we project that the Soviet Navy will have [deleted] major surface combatants today, [deleted] nuclear cruise missile submarines [deleted] presently, a nuclear attack submarine force [deleted] Backfire bombers, [deleted]. New, improved anti-ship missiles will have entered the Soviet inventory, [deleted]. We expect a new nuclear powered conventional take-off and landing carrier to be in service, [deleted].

CARRIER DEFENSE

Senator LEVIN. How have you "hedged" our carrier defense against these threats?

Admiral HAYWARD. The combat systems which will be employed by carriers and other units of battlegroups over the next decade have been designed to operate against these projected threats. Many of these systems are in development or are being substantially improved. For example, we are expanding our F-14 force levels to provide improved capability against Soviet bombers. Procurement of AEGIS-equipped combatants, such as the CG-47 class cruisers, modernization of existing area defense missile ships, and continued installation of effective self defense systems will dramatically improve our capability to engage attacking missiles. Against Soviet submarines, we will field improved active and passive detection systems and new engagement systems such as LAMPS III. Finally, we are now distributing our offensive capability to engage Soviet surface combatants with Harpoon and Tomahaw missile systems. Thus, over the next decade, we will achieve a much more evenly balanced capability across all units of the battlegroups to confront the threat.

SOVIET ANTI-SHIP WEAPONS THREAT

Senator LEVIN. Have there been any significant changes during the last year in the Soviet anti-ship weapons threat?

Admiral HAYWARD. There have been several significant changes in the Soviet anti-ship weapons threat in the last year. Among other things, the SS-N-19 cruise missile reached operational status; the lead *Kirov* class CGN completed sea trials; significant progress was made in the development of the new [deleted] anti-ship cruise missile [deleted]; and Backfire bombers were added to the Soviet Naval Aviation inventory.

PASSIVE PROTECTION

Senator LEVIN. Will CVN-72 and CVN-73 incorporate the full range of passive protection studied for the CVN-68 class in the Sea Based Air Platform Study? If not, why not?

Admiral HAYWARD. CVN 71 as well as CVN 72 and CVN 73 will incorporate the full range of passive protection studied in the Sea Based Air Platform Study.

CV-59 CLASS PASSIVE PROTECTION

Senator LEVIN. Will the CV-59 class carriers proposed for SLEP in fiscal year 1983 incorporate the passive defense concepts identified in the Sea Based Air Platforms Study? If not, why not?

Admiral HAYWARD. Presently the U.S.S. *Forrestal* is scheduled for SLEP in fiscal year 1983. This ship incorporates the basic passive protection designed for that class carrier. Backfit of in service carriers is undergoing cost and feasibility study at this time with recommendations due within this fiscal year.

CV-60 PASSIVE PROTECTION

Senator LEVIN. Do you plan to backfit improved passive defenses into the CV-60 SLEP carrier later in its career?

Admiral HAYWARD. Backfit of improved passive defenses into the CV-60 SLEP carriers later in their career will be dependent on cost effectiveness, service life remaining and their priority after CVN-68 class carrier backfits.

WHY WILL THE REGULATIONS WORK THIS TIME?

Senator LEVIN. As a result of the events on the U.S.S. *Ranger* and apparently other findings the Navy last fall issued two new instructions governing the administration and operation of brigs and correctional custody units. This is very similar to the events that led to the issuance of the Navy Corrections Manual in 1972. Apparently the firm but fair regulations propounded in 1972 were ignored; at least in the case of the *Ranger*. As a recent article on the military corrections system reported: "We've got every damn safeguard in the world," one knowledgeable Navy source said, 'and how they failed on the ship, I'll never know.' "(Corrections Magazine December 1981, p. 15)."

What is going to prevent the new instructions—after some period of heightened attention—from being lost in the shuffle or being ignored again? What are you doing this time that is going to make a difference?

Admiral HAYWARD. The previous guidance contained in the Corrections Manual set forth broad basic policies and left specific implementation to subordinate commanders. The recently issued "Manual for the Administration of Navy Brigs" establishes firm specific guidance from the headquarters level. It allows flexibility to account for size and physical plant differences while ensuring uniform operations Navy wide. Annual inspections are required and unannounced checks are encouraged. Specifically, more involvement is required at all levels of the chain of command.

SPECIFIC FINDINGS RE BRIGS AND CCU'S

Senator LEVIN. As you may know I have had a strong interest in the administration and operation of Navy brigs and correctional custody units since the unfortunate incidents on the U.S.S. *Ranger* last year. In 1979 and 1980 you directed a Navy-wide review of the way the Navy's brigs and correctional custody units were being operated and administered. What specific types of problems did you find in Navy brigs as a result of your reviews? In correctional custody units? What was the cause of each of these types of problems?

Admiral HAYWARD. The major problems in the brig and CCU areas were a lack of uniformity in operation and administration, a lack of chain of command awareness and involvement and a perception shared by many of our sailors that life in a brig or CCU was preferable to normal sea duty. All of these problems stemmed from the lack of specific guidance on administrative policies and procedures. Our recently published Brig and CCU Manuals provide specific, standardized procedures and should correct these problems.

REACTIVATION OF AFLOAT CCU'S

Senator LEVIN. Last year you suspended operation of all afloat correctional custody units. Have any of those units been reactivated? If so, which ones? Why? When do you expect the remainder of these units to be reactivated?

Admiral HAYWARD. None of the afloat CCU's have been reopened. Afloat CCU's will be used only when there is a real need that cannot be met by the avilability of a unit ashore. Each afloat unit will be manned by a carefully screened and trained staff, and will be located in an adequate physical plant equipped with the proper training materials. No time table for the reopening of the afloat units has been established, however, Fleet Commanders have been given the authority to reopen them after a prescribed inspection and certification. I want to be sure we have safety and quality before they are reactivated.

BRIG/CCU INSTRUCTIONS

Senator LEVIN. The Navy has now promulgated two enlisted instructions relating to the administration and operation of Navy brigs and correctional custody units. How do these instructions control the use of physicasl force in brigs and correctional custody units?

Admiral HAYWARD. The use of physical force in brigs and CCU's is prohibited except in those extreme instances when a staff member must protect himself/herself or to protect another prisoner or confinee. Only the very minimum use is authorized.

Senator LEVIN. How about controls on use of physical training and exercises?

Admiral HAYWARD. A comprehensive physical training program has been developed that requires strict attention be given to temperature/humidity levels, capabilities of those exercising, the type and amount of exercises, and requires full active participation of the supervisor. This is specifically addressed in the instructions.

Senator LEVIN. What do the instructions require in terms of the availability of emergency medical care in brigs and correctional custody units?

Admiral HAYWARD. A medical officer is appointed in writing for each brig/CCU and provides routine and emergency medical services in accordance with Navy directives. Full medical services are to be provided within the physical confines of the brigs ashore where possible.

Senator LEVIN. How do the new instructions deal with the qualifications of personnel charged with running the brig or correctional custody unit?

Admiral HAYWARD. Specific qualifications and training requirements are spelled out in detail. Only the best qualified will be assigned to these billets.

Senator LEVIN. How do the new requirements in each of these areas differ from previous instructions in each of these areas?

Admiral HAYWARD. Previously only the broad guidance provided by the Corrections Mannual was available. This guidance was supplemented by locally prepared instructions which differed from one command to another. Our newly issued Brig and CCU Manuals provide specific, standardized procedures for the entire Navy.

HOW ARE THE INSTRUCTIONS WORKING IN THE FIELD

Senator LEVIN. What has been the reaction from the field to these new instructions on brigs and correctional custody units? How are these regulations being implemented? How will you judge whether they have been successfully implemented?

Admiral HAYWARD. Our feedback from the field has been positive. The regulations require the active involvement of the chain of command, and are being implemented via the chain of command. The success of the program will be determined by an analysis of the inspection results, and by monitoring the performance of those who return to duty after serving in a brig or CCU.

ENFORCEMENT OF NEW INSTRUCTIONS

Senator LEVIN. Who is immediately responsible for insuring that these instructions are being complied with? What role do you and your office play in the enforcement process? Will a CNO representative periodically be inspecting the brigs and correctional custody units? How frequently? Is there a danger in delegating too much of the enforcement responsibility? If not, why not?

Admiral HAYWARD. The fleet CINC's and their subordinate commanders are responsible for compliance with the new directives. My headquarters will provide assist visits as required. They will also monitor all inspection reports and insure that prompt corrective action is taken. Each brig and CCU will be inspected at least annually by each major claimant. Additionally, the Navy Inspector General will inspect all the brigs/CCUs in each area he visits. I don't believe that too much of the enforcement authority has been delegated. I think that the best method of preventing future problems is to actively involve the chain of command, and we have taken steps to do this.

AGE OF NAVY BRIGS

Senator LEVIN. Some of the Navy's brigs are nearly 40 years old now. Is there any indication that the age of these facilities has contributed to disciplinary problems in brigs? What is being done to correct the problems of aging facilities?

Admiral HAYWARD. The age of the brigs is only an incidental factor to the disciplinary problems in our brigs. Physical plant deficiencies which limit medical and rehabilitation programs, cause prisoner and staff tensions through overcrowding and limit the ability to segregate problem prisoners can lead to disciplinary problems. We are working on a multi-year plan which will upgrade our facilitities and increase our brig capacity.

Senator COHEN. The committee will now adjourn.

[Whereupon, at 1:05 p.m., the committee adjourned, subject to call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

FRIDAY, MARCH 26, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

ALLIED CONTRIBUTIONS TO WESTERN DEFENSES AND IMPLICATIONS OF U.S. FORCE WITHDRAWALS FROM WESTERN EUROPE

The committee met, in open session, pursuant to notice, at 11:06 a.m., Senator John Tower, chairman, presiding.

Members present: Senators Tower, Humphrey, Cohen, Stennis, Byrd, and Levin.

Staff present: Rhett B. Dawson, staff director and chief counsel; Paul C. Besozzi, minority counsel; Brenda K. Hudson, assistant chief clerk; Drew A. Harker, research assistant; James R. Locher, III, David S. Lyles, and James C. Smith, professional staff members; and Kathleen L. McGuire, staff assistant.

Also present: Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Paul Schreiber, assistant to Senator Denton; Don Imgram, assistant to Senator Quayle; Frank Krebs, assistant to Senator Cannon; Arnold Punaro, assistant to Senator Nunn; and Peter D. Lennon, assistant to Senator Levin.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman Tower: The committee will come to order.

Over the last decade, the West has witnessed the massive and unrelenting buildup of Soviet military power—both in nuclear and conventional terms. This military buildup, on a scale unprecedented in peacetime history, has increased the pressures on nations in Western Europe and East Asia.

In addition to increases in military strength in contiguous areas, the 1970s saw the development of forces and capabilities enabling the Soviets to substantially extend the reach of their military might. Most obvious in this regard are the new operational capabilities of the Soviet Navy. Less obvious, but equally troubling, are improvements in Soviet power projection forces including Naval infantry, airborne forces, airlift, and sealift.

With this newfound military strength, the Soviets have begun a bold, adventuresome policy of challenging Western interests. The invasion of Afghanistan is the most dramatic example of this new

aggressive policy. This challenge to Western interests requires a united Western response.

Over the last 3 years, the American people have indicated their desire to rectify a military balance that has been slowly shifting against the West. Thus, the United States increased defense spending in fiscal year 1982 by 7.7 percent and the Reagan administration seeks to raise defense spending in fiscal year 1983 by 10.5 percent.

Thus, the American people have indicated that they are willing to accept the sacrifices associated with sharing the burden of Western defense.

U.S. relations with its major allies, however, are currently troubled by differences over what constitutes an appropriate sharing of the burdens and benefits of alliance. Some of our friends are trying to do their part; unfortunately, some have not borne as much of the common burden of which they are capable. The West faces many challenges in the world. The United States, by itself, cannot provide the additional resources that are required for Western defense.

Some in the United States have argued that the United States should withdraw some of its forces from Western Europe because the Europeans are not willing to provide adequately for their fair share of the common defense. While I am in sympathy with those who desire our friends to do more, we must never forget that Western Europe remains a vital interest of the United States and it is fundamentally in the U.S. national interest to help protect it. I can think of no greater victory for the Soviet Union than U.S. force withdrawals from Western Europe.

I might point out that in the decade of the seventies defense spending of our allies in Europe increased in real terms more than it did in the United States; that is to say in percentage terms. I would note that with one or two exceptions our allies have a draft or conscription for their armed forces.

I think, too, that when we urge our allies to do more, and I hope they will, we should bear in mind that over the last 5 years this has been an average ratio of sales of U.S. military equipment to our allies versus their sales to us of 6.3 to 1 in favor of the United States.

In the year 1980 it was 9.4 to 1 in favor of the United States. So, I think we must understand when we urge them to do more we are at the same time urging them to buy more equipment from us.

Bearing these things in mind, I would like to welcome today to review various alliance issues with the committee, three witnesses from the administration: Hon. Lawrence S. Eagleburger, Under Secretary of State for Political Affairs; Hon. Richard D. DeLauer, Under Secretary of Defense for Research and Engineering; and Hon. Richard N. Perle, Assistant Secretary of Defense for International Security Policy.

I would like to welcome you gentlemen. We are anxious to hear your testimony. My understanding, Secretary DeLauer, is that you are going to be the leadoff man. You may proceed as you see fit. Any statement you have will be entered in its entirety into the record. You may summarize it if you choose.

Dr. DeLauer?

STATEMENT OF HON. RICHARD D. DeLAUER, UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING

Dr. DeLAUER. Mr. Chairman, we in the Defense Department can't agree any stronger than you have stated on this question of cooperation with our allies and the mismatch in some of the arms transfer monetary issues.

I am here as a pinch-hitter for Frank Carlucci. He will be along as soon as he can; he is at the White House. We will present his statement to the committee for the record. Let me summarize very quickly what he would have said this morning.

We certainly welcome, and I welcome, the opportunity to talk about the relationship between the United States and our NATO partners. Secretary Carlucci has just completed a trip through Europe. He found that the morale of our forces is extremely high. He was impressed by their enthusiasm and excited by the fact that our field commanders evaluations indicate that their troops are good and getting better.

With the threat you so aptly described of the Soviet military power, it is essential that we continue to insure the security of Europe. Given our growing economic interdependence, our way of life would be seriously threatened if Western Europe fell under the hegemony of the Soviets and we were left alone to confront a more dangerous and hostile world environment.

The military threat to the alliance is greater today than at any point in its history. Soviet military power continues to grow in virtually all categories of weapon systems. It would be dangerously naive to expect the Soviet Union, if it once achieved military superiority, not to try to exploit that advantage even more fully than it is doing today.

Clearly the NATO alliance and the United States have material resources to meet the threat and this administration is determined to increase its effort and to encourage our allies to follow our lead.

In attempting to evaluate the burdensharing, however, we must keep in mind that there is no single measure of performance, such as the GNP, that alone can provide an accurate yardstick of national contribution. For example, the U.S. devotes 5½ percent of its GNP for defense while the rest of the NATO averages 3.5. At the same time, however, our NATO allies maintain more active forces, about 3 million, compared to about 2 million for the United States.

Also, some elements of national contributions cannot easily be quantified or are not customarily included in the statistical comparison. For example, the allies contribute extensive infrastructure. Germany, for one, provides real estate worth more than $80 billion to the NATO forces, including their own. Germany also provides $6 billion for support of Berlin, including the cost of the three allied brigades.

We mention these factors, Mr. Chairman, to help provide a more balanced picture of some of the contributions our allies are making toward sharing the common burden. Clearly more needs to be done by all of the alliance members if we are to withstand the challenges that lie ahead and we are working very closely with our allies to increase their cooperation and support.

HOST NATION SUPPORT

Some examples. We are arranging a greatly increased program of host-nation support where our allies provide logistical and service units to support our forces during wartime. We expect to sign an agreement next month that will add 93,000 German reservists to our wartime forces and the German Government will pay over 50 percent of the cost involved.

We are also discussing with the Bonn authorities a long-term plan for restationing three U.S. brigades in new facilities closer to the battle positions.

We are also discussing a comprehensive plan with our allies based on the possible contingency that U.S. forces might be engaged outside the treaty area which would necessitate our allies taking compensatory measures in Europe and assist in transportation of our forces.

In conclusion, Mr. Chairman, let us stress that these are only some of the actions we have underway with our allies and that we intend to work closely with them in the future to maintain a fair distribution of the common security burden. The Soviet threat is real and requires increased effort by all of us.

In the final analysis, however, what a nation chooses to spend on defense can only be in terms of its own self-interest, a function of the threat it perceives, and not as a consequence of what it perceives as a fair burden relative to its allies.

That concludes my summary statement, Mr. Chairman.

[The prepared statement of Hon. Frank C. Carlucci III, follows:]

PREPARED STATEMENT OF FRANK C. CARLUCCI III, DEPUTY SECRETARY OF DEFENSE

Mr. Chairman and Members of the Committee, I welcome the opportunity to come before your committee to address a subject of critical importance to the security of our Nation—the continued defense relationship between the United States and our NATO partners.

Let me mention at the outset that I have just recently completed a trip through Europe and I am pleased to report that the morale of our forces is high. I was impressed by their enthusiasm and was convinced that recent assertions by our field commanders that our troops are good and getting better are correct.

Mr. Chairman, twice in this century, Americans have fought and died on battlefields in Europe in order to protect the vital interests of the United States and restore the peace and independence of friends and allies with whom we share common traditions and values. The continuity of this interest is no less true today and transcends whatever political differences that may periodically arise among the members of the Western community. With the threat to freedom posed by increasing Soviet military power, it is essential that we continue to help ensure the security of Europe and the North Atlantic Treaty area. Were Western Europe to fall under the hegemony or influence of the Soviet Union, we would face a more hostile security environment than we know today.

As Secretary Weinberger told the Senate Appropriations Committee earlier this year, "It is enormously in our own interest * * * to make sure that Europe is not overrun. I don't believe we could exist in the world with a Europe that was overrun by the Soviets. So we have an enormous national interest in NATO as well as an interest that derives from a long history of shared traditions and friendships and similar values."

The military threat to the alliance, we believe, is greater today than at any point in its history. Soviet military power continues to grow in virtually all categories of weapon systems. Since the mid-1960's, they have nearly doubled real defense spending, more than doubled research and development, and increased military manpower by over 30 percent. The Soviet Union is producing new systems today at production rates that will allow them to maintain this momentum far into the future. It would be dangerously naive to expect the Soviet Union, if it once achieves clear mil-

itary superiority, not to try to exploit their military capability even more fully than they are doing now. We must assume some rationale behind the Soviet Union's massive allocation of resources to the military at the expense of their other basic needs.

It was against this background, Mr. Chairman, that the President's defense budget was developed and with the realization that the combined defense efforts of the United States and its NATO allies in the past, as substantial as they have been, have not kept pace with the increasing Warsaw Pact capability. It is inescapable that all alliance members must do more and Secretary Weinberger, I and other officials of this administration continually keep this issue in front of them.

Clearly, the NATO allies and the United States have the material resources to meet the threat. Collectively we have 80 percent greater population, four times the GDP and more than double the per capita GDP of the Warsaw Pact. The problem then in providing the forces to carry out NATO's strategy of deterrence and defense is not the availability of adequate national resources, but rather recognition of the threat, the willingness to make necessary sacrifices in order to devote more of those resources to defense, and the cooperation to secure the maximum product from our common efforts.

Every national contribution to NATO defense—political, material, manpower or economic—represents a share of the common burden of defense.

Determination of how much each partner should contribute is a highly complex matter as ability and competing needs vary from country to country. Consequently, there is no single measure of performance, such as percent of GDP for defense, that alone can provide an accurate yardstick of burdensharing. A number of measures must be considered to get a balanced picture of relative national contributions.

The GDP of all non-U.S. NATO nations represents around 55 percent of the NATO total. Against this resource base our NATO allies account for over 55 percent of total NATO ground combat capability, over 50 percent of the tactical air force combat aircraft and over 35 percent of the total tonnage of naval surface combatants, (including aircraft carriers), mine warfare forces and submarines. The NATO allies maintain on active duty about 3 million men and women compared with about 2 million for the United States. If we include reserves that have specific assignments after mobilization, the allied total is over 6 million compared with about 3 million for the United States. If we add civilian defense manpower to the combined active and reserve figures, the totals come to around 7½ million for the allies and just over 4 million for the United States.

Another factor is that most of the European nations obtain their military manpower through conscription. Were allied defense manpower costs to reflect their true civil-sector opportunity costs, the value of non-U.S. NATO defense contributions would be larger than they appear with conscription costs.

Some elements of national contributions cannot easily be quantified or are not customarily included in statistical comparisons of defense outlays and resource commitments. Our allies, for example, contribute extensive infrastructure to the potential war effort, which includes a significant part of their potential tax base, such as casernes occupied by U.S. troops. Airfields and other defense facilities all represent a contribution to the defense infrastructure that is denied commercial application and is excluded from the tax base. Germany is estimated to contribute real estate worth more than $80 billion for use by NATO and German forces compared to only some $27 billion for similar facilities in the United States. Germany also provides about $6 billion a year for support of West Berlin, including the cost of the three allied brigades stationed there.

I mention these factors, Mr. Chairman, to help provide a more balanced picture of some of the contributions our allies make toward sharing the common burden. But clearly more needs to be done by all the alliance members if we are to withstand the challenges from Moscow.

One of the major initiatives we are pursuing with our allies is to increase their contributions by means of host nation support.

The Warsaw Pact ability to mobilize forces quickly for a sudden attack has increased dramatically over the last decade. U.S. forces are an important source of NATO reinforcements and we have been striving for several years to improve our capability to reinforce Europe rapidly in an emergency. However, we have critical shortages in combat service support units—primarily logistics units—that provide sustained combat capability. Further, even if U.S. support units were available, we do not have sufficient strategic lift to move them to Europe early in a contingency. Additionally, the possibility that we would have to commit forces for Southwest Asia places another demand on already overloaded logistics and strategic lift capabilities. We were faced with several alternatives to correct that situation. We could station additional units in Europe, or we could activate regular or reserve units in

the United States and procure additional strategic lift to deploy them overseas rapidly. Alternatively, we could turn to our allies for increased host nation support. Forward stationing or activation of U.S. units and strategic lift are expensive propositions. Therefore, we chose to attempt to acquire support from our allies.

In the fall of last year, agreements were reached with the United Kingdom and the Benelux for provision of increased civilian sector support during an emergency. These assets to perform such functions as transportation, billeting, etc., would be mobilized from the civilian sector during an emergency and would be dedicated support for U.S. forces. There are no peace time costs involved, since assets would be used only during wartime.

In Germany, however, we are faced with a somewhat different problem. Employment of mobilized civilian assets in the combat zone does not provide a satisfactory solution. The German Government recognized our requirements and developed a proposal in which they would activate German reservists to perform combat service support for functions in support of U.S. forces. For the past several years we have been negotiating with the German Government to define the extent and manner that this support will be provided. I am happy to report that a draft bilateral agreement is in the final stages of staffing both in Bonn and Washington. We expect to sign this agreement in April. It provides for 93,000 German reservists in wartime and the necessary training, and command and control in peacetime to provide an effective force. Costs of this initiative are significant, but they are only about one-tenth of what it would cost to provide the same capability with U.S. reserve component personnel or 1-200th of what it would cost to add the airlift capability to move that force to Europe. Moreover, the German government is paying over 50 percent of the costs involved. Implementation of the total initiative will take approximately 5 years, but when fully implemented, will provide an imaginative and cost effective solution to our problem.

It is our desire to attempt to achieve allied support for peacetime stationing costs as well. Although allied governments, and the Germans in particular, provide significant amounts of support, we have asked for additional assistance in achieving the restationing of three U.S. brigades in new facilities in Germany. Last week we met with the German delegation to discuss this important subject. It was agreed at this meeting to form a joint group of experts who will meet within 45 days to examine the specifics of our requirement. This group will identify those things which could be done quickly, develop alternative solutions for the parts of our requirement which are more difficult and present the recommendations to both governments as soon as possible. The German delegation was quite positive and we believe that by this summer we will be able to review a list of recommended actions developed by this group of experts. We will keep this committee fully informed of our progress in this important matter.

Out-of-area threats to alliance interests is another important cooperative area on which we are working with our NATO allies. Most of the forces which would be assigned to the Rapid Deployment Force in the event of a deployment to deter aggression in Southwest Asia would otherwise be reinforcements for NATO Europe. NATO is presently studying the impact of such a diversion of US forces with a view to identifying ways in which our NATO allies could develop compensatory measures. A DOD team spent last week in Brussels at NATO request to provide information about the RDF and to assist in development of the NATO Study.

We are also working with our NATO allies on overflight rights and enroute access and support in the event a deployment to Southwest Asia should become necessary. The allies have already provided overflight rights and enroute support during our recent RDF exercise, but the exercise was on a much smaller scale than would likely be required in an actual deployment.

We are also encouraging our allies to provide security assistance and economic aid to select countries in Southwest Asia and, according to their capabilities, provide peacetime military presence and forces for contingencies in Southwest Asia.

In conclusion, Mr. Chairman, let me stress that we intend to continue to work closely with our allies both to increase the cooperation among us and to maintain a fair distribution of the common security burden. The Soviet threat is real and requires increased effort by all of us. In the final analysis, however, what a nation chooses to spend on defense can only be—in terms of its own self interests—a function of the threat it perceives and not as a consequence of what it perceives as a fair burden relative to its allies.

This completes my statement, Mr. Chairman. If I might now answer any questions you may have.

Chairman TOWER. Thank you, Dr. DeLauer.

Mr. Eagleburger?

STATEMENT OF HON. LAWRENCE S. EAGLEBURGER, UNDER SECRETARY OF STATE FOR POLITICAL AFFAIRS

Mr. EAGLEBURGER. Mr. Chairman, I would like to summarize my statement as well.

It is only fair I think, that Americans should ask whether their sacrifices are being matched by those whose territory we are committed to defend, especially as our NATO allies have become as prosperous as we. But a responsible debate on this issue must start with a clear appreciation of our national interests and the facts about allied performance.

ALLIED BURDENSHARING

Under Secretary DeLauer has briefly reviewed for you the performance of our allies with regard to burdensharing. Let me offer also some brief and general thought on the question of burdensharing before I become more specific.

There is no question that a gap exists today between the rate of growth of the U.S. defense effort and that of the allies, but one very basic reason for that is that we are now running hard to make up for nearly a generation of neglect of our military program. The allies in contrast, as you yourself, Mr. Chairman, have pointed out, have turned in a remarkably steady performance.

Roughly speaking they have sustained an increase of between 2 and 3 percent for more than a decade. We are climbing out of a serious trough, they are not. Now that we have begun, and I stress begun, to offer genuine leadership by our example, we have every right to expect a stronger allied response, but I want to underscore that the main reason we want to see the allies do more is that Western defense requires it, not simply because it would be more fair.

As important as the question of equity is, it is secondary to the question of security. Had the allies been concerned more for equity than security, their effort might have declined as ours did during the 1970s. I believe that removing U.S. forces from Europe would not only harm our security, but also damage the most important set of relationships we have and erase our hope of greater allied cooperation.

IMPORTANCE OF U.S.-EUROPEAN RELATIONSHIP

We and the Europeans provide the foundation of the entire international trading and financial system. Our European NATO allies have an aggregate GNP slightly larger than that of the U.S. They took over $62 billion in U.S. exports in 1980 resulting in a U.S. trade surplus of almost $25 billion. They represent one of the largest markets for U.S. agricultural exports which are crucial to a healthy U.S. economy.

U.S. direct investment in NATO countries amounted to $76 billion at the end of 1980 and generates a significant flow of remittances which are a positive factor in the U.S. balance of payments as well as a major factor in the profitability of many U.S. firms.

Any discussion of the rationale for the U.S. troops present in Europe has to proceed from a recognition of the critical importance of the European-American relationship in all of its forms and parts.

The Soviet threat to Europe is greater than ever, Mr. Chairman. I think we all agree with that. It requires a greater than ever response. A decade of détente in Europe has failed to moderate Soviet behavior or stem the growth of Soviet military might. The United States must rely even more on its friends and allies to counterbalance Soviet power in Europe and around the world.

While the threat to Europe has grown the threat to Western interests in other regions from Soviet adventurism and from local instability and conflict has also grown dramatically.

U.S. and Western Europe continue to form a single social, cultural, and economic entity. It is the most vital such entity on the globe and we must remember that when we try to deal with our allies on specific issues of burdensharing, troop levels in Europe, and so forth. American troops in Europe form the essential military bond which holds this Western coalition together.

WHY U.S. TROOPS ARE IN EUROPE

American troops in Europe are the concrete embodiment of America's commitment to collective security. American troops in Europe are the essential prerequisite for America's leadership of a united Western coalition. Placing that commitment in doubt would demoralize Western Europe and virtually exclude allied support for U.S. efforts to meet the Soviet challenge outside of Europe.

I know that many who argue we should be at least debating the question of reducing our troops do it for tactical reasons because they believe it will encourage our allies to do more. I believe this approach is unwise.

At a time when we are working with allied governments to warn publics of the magnitude of the Soviet threat, even token troop withdrawals would send a totally contradictory signal. It would be impossible to counter the argument that the European security situation cannot be all that bad if the United States has begun to pull out its forces. We would cripple allied governments in their efforts to gain public and parliamentary support for improved defenses.

The main beneficiary of any—and I stress any—U.S. troop withdrawal would be the Soviet Union, Mr. Chairman. Thank you.

[The prepared statement of Lawrence S. Eagleburger follows:]

PREPARED STATEMENT BY LAWRENCE S. EAGLEBURGER, UNDER SECRETARY OF STATE.

Mr. Chairman and Members of the committee, I am pleased to join my defense department colleagues today to testify on the defense relationship between the United States and our NATO partners and more specifically on the relationship between the maintenance of U.S. troops in Europe and the equitable division of labor within the NATO alliance. We read about a growing sentiment in America to withdraw forces from Europe, ostensibly because of perceived European failure to provide adequately for its share of the common defense. It is only fair that Americans should ask whether their sacrifices are being matched by those whose territory we are committed to defend, especially as our allies have become as prosperous as we. But a responsible debate on this issue must start with a clear appreciation of our national interests and the facts about allied performance.

Under Secretary DeLauer has already reviewed the facts and figures of the allied contribution to the common defense. I would like to focus my remarks on the criti-

cal importance of maintaining the U.S. military presence in Europe. First, however, let me offer some brief and general thoughts on the question of burdensharing. There is no question that a gap exists today between the rate of growth of the U.S. defense effort and that of the allies. But one very basic reason for that is that we are now running hard to make up for nearly a generation of neglect in our military programs. The allies, in contrast, have turned in a remarkably steady performance. Roughly speaking, they have sustained an increase of between 2 and 3 percent for more than a decade. We are climbing out of a serious trough; they are not.

Now that we have begun—and I stress, begun—to offer genuine leadership by our example, we have every right to expect a stronger allied response. But I want to underscore that the main reason we want to see the allies do more is that Western defense requires it, not simply because it would be more fair. As important as the question of equity is, it is secondary to the question of security. Had the allies been concerned more for equity than security, their effort might have declined as ours did during the 1970's.

Thus, I endorse the Defense Department's assessment that the allies are making an important contribution and that the policies we are now following are the best policies to induce the allies to do even more. I believe that removing U.S. Forces from Europe would not only harm our security, but also damage the most important set of relationships we have, and erase our hope of a greater allied contribution.

Until the 20th century, the United States sought to carve out its own destiny independent of those European states which are its political, economic and philosophical parents. The lesson that the security of the United States is indivisible from the security of Europe was made tragically clear on two occasions in this century. At the outset of both world wars, we began in neutrality, only to join the battle because we found that our fundamental interests were being threatened.

We are bound to Europe by history, culture, politics, and economics. Most Americans retain their personal and cultural roots in Europe. The vigorous and thriving democracies of Europe and America are the core of western civilization. Our values are shared with Europe in the purest sense: our values have their roots in Europe and have, in turn, nourished the European commitment to liberty and the dignity of the individual.

We and the Europeans provide the foundation of the international trading and financial systems. Our European NATO allies have an aggregate GNP slightly larger than that of the U.S., and they took over $62 billion in U.S. exports in 1980, resulting in a U.S. trade surplus of almost $25 billion. They represent one of the largest markets for U.S. agricultural exports, which are crucial to a healthy U.S. economy. U.S. direct investment in NATO countries amounted to $76 billion at the end of 1980 and generates a significant flow of remittances which are a positive factor in the U.S. balance of payments, as well as a major factor in the profitability of many U.S. firms.

Any discussion of the rationale for the U.S. troop presence in Europe has to proceed from a recognition of the critical importance of the European-American relationship in all of its forms. But it must also take account of the fact that the world has changed greatly over the 30 years since NATO was created and U.S. troops were committed to it.

First, the United States-Soviet balance has moved from U.S. superiority to, at best, a precarious balance, with powerful adverse trends.

Second, the U.S.-European balance has shifted even more dramatically. In 1945 the U.S. produced and consumed half the world's goods. Today, our allies in Europe and the Pacific collectively produce more than we.

Third, the balance between north and south has shifted most starkly. In little more than a generation, we have moved from a world dominated by the West to one where over 100 independent nations, suspicious of and sometimes hostile to the West, control extensive resources and trade routes of vital interest to the West.

These changes point to several conclusions regarding the Atlantic partnership.

First, the Soviet threat to Europe is greater than ever. It requires a greater-than-ever response. A decade of détente in Europe has failed to moderate Soviet behavior or to stem the growth of Soviet military might.

Second, the United States must rely even more on friends and allies to counterbalance Soviet power in Europe and around the globe.

Third, while the threat to Europe has grown, the threat to Western interests in other regions, from Soviet adventurism and from local instability and conflict, has also grown dramatically.

The United States and Western Europe continue to form a single social, cultural and economic entity. It is the most vital such entity on the globe, and in the history of mankind. The world is a more dangerous and difficult place than it was 30 years

ago, but the West continues to have the resources, the talents, the political will and the military potential to maintain its security and promote peaceful progress beyond its borders.

American troops in Europe form the essential military bond which holds this Western coalition together. American troops in Europe are the concrete embodiment of America's commitment to collective security. American troops in Europe are the essential prerequisite for America's leadership of a united Western coalition. Placing that commitment in doubt would demoralize Western Europe and virtually exclude allied support for U.S. efforts to meet the Soviet challenge outside of Europe.

I recognize that most of those who talk of reducing our troop presence in Europe would subscribe to what I have said. They would argue that we should maintain our commitment and our presence, but that we should spur our allies into action by symbolic withdrawals, or by threatening withdrawals. Their approach is largely tactical, designed to produce a more equitable distribution of the burden, if not a greater overall effort.

This approach is highly unwise. At a time when we are working with allied governments to warn publics as to the magnitude of the Soviet threat, even token troop withdrawals would send a totally contradictory signal. It would be impossible to counter the argument that the European security situation cannot be all that bad if the U.S. has begun to pull out forces. We would cripple allied governments in their efforts to gain public and parliamentary support for improved defenses.

The main beneficiary of any—and I stress, any—U.S. troop withdrawal would be the Soviets. Dividing the alliance and pushing America out of Europe is a central aim of Soviet foreign policy. The divisiveness that would be created by a U.S. drawdown, and the resultant decrease in allied defense effort, would be a major Soviet triumph and only encourage them to intensify their wedge-driving.

I know there will be those who argue that this analysis is wrong, that by stunning the Europeans, we can force them to accept more responsibility and their share of the burden. I believe, and I think history shows, that American leadership and the American commitment are the surest means to hold NATO together and maintain allied efforts.

In closing, let me assure you that we are not complacent, not inactive. We have engaged the allies extensively in discussions of what needs to be done both to increase the overall effort and to ensure that the burden is fairly shared. I expect that the NATO summit will produce further progress.

This completes my statement. I would be pleased to answer any questions you may have.

Chairman TOWER. Thank you, Secretary Eagleburger.

Secretary Perle?

STATEMENT OF HON. RICHARD N. PERLE, ASSISTANT SECRETARY OF DEFENSE FOR INTERNATIONAL SECURITY POLICY

Mr. PERLE. Mr. Chairman, I believe a third statement echoing the sentiments of the two statements you have already heard will be superfluous, so I won't make one.

It is a pleasure for me to be able to say, however, which I am not always in a position to say, that I agree entirely with the presentation made by the Department of State and needless to say with the presentation made by Dr. DeLauer.

Chairman TOWER. We are delighted to witness this détente between the Department of State and Department of Defense.

Dr. DELAUER. Mr. Chairman, it is more surprising that he agrees with me.

Chairman TOWER. Then we will proceed to questions. I have a number of questions, some of which I will submit to you gentlemen individually for the record. I want to get into specific matters that we have dealt with in this committee and in the Appropriations Committee.

There are a number of buy American provisions which were incorporated into the appropriations bill last year which, in the view

of many, could adversely impact on allied defense cooperation. I will address this question particularly to Secretary Eagleburger and invite Secretary Perle to comment.

Of these provisions that were enacted in the closing rush last year, which has been the most troubling to our allies and most damaging to defense cooperation between the United States and its friends?

Mr. EAGLEBURGER. Mr. Chairman, I will make a general point first which is that we have heard in general terms from any number of our allies that they are concerned that, in fact, the U.S. Government is moving away from a commitment we have made for a number of years to try to increase cooperation with our Western European allies, and in fact the trend these days seems to them to be in the opposite direction. So they start with that as a general perception.

Now with regard to the specifics that the allies have raised, and I am sure they have raised them in more specific detail with the Defense Department, they have raised several with us, the first of which is the question of the purchase of administrative use vehicles, and the provision in the law now which prohibits by and large the purchase of such vehicles.

The Germans in particular have raised this question with us because they decided to join in the NATO AWACS program. That decision was at least in part, I understand, based on the existence of this program and they expected that we would be able to purchase some German vehicles for the U.S. forces in the Federal Republic of Germany.

SPECIALTY METAL

The other one we have heard about on more than one occasion is the question of specialty metal, particularly as it would impact on, I think it is, the Harrier and one other aircraft which at the moment I can't remember the name of, but the British have particularly raised this one with us. They are concerned whether it will make it impossible for us to cooperate with production of some aircraft.

Those are the two I am particularly familiar with. I imagine Dr. DeLauer and Mr. Perle have more examples.

Chairman TOWER. Mr. Perle, do you have anything more to add to that?

Mr. PERLE. Senator Tower, the concern that has been most directly expressed on occasion in meetings with Defense Ministry officials from the NATO countries has to do with the specialty metal provision because it is subject to an interpretation that would effectively preclude the sale of any defense equipment by our allies to the United States.

I think interpretations of that breadth are probably overdrawn. There is a real question as to how the statute ought to be interpreted. The immediate reaction of our allies is that it threatens virtually all of the cooperative programs that are presently underway.

I am sorry to say that the extent of the cooperative programs is not nearly as full as we would have liked. It is enormously difficult to harmonize procurement practices in a way that improves the ef-

ficiency of the alliance. Overall we are anxious to do that whenever we can and this legislation very clearly stands in the way of those efforts.

In the long run I don't believe it will help protect American industry in any case. It seems to me to be selfdefeating and greatly complicates our efforts to spend defense resources more wisely and more efficiently.

Chairman TOWER. Would you say that the Department of Defense urgently needs relief from these provisions?

Mr. EAGLEBURGER. Yes; I do.

Mr. PERLE. No question about that.

Chairman TOWER. What is the balance of the defense procurement trade between the United States and our allies collectively and individually?

You might want to submit figures for the record. If you do we will be glad to have them. I think we should understand what the scope of that balance of defense procurement trade is between us and our allies.

Dr. DELAUER. Mr. Chairman, you recited in your opening remarks some of the pertinent statistics. I do have here a balance of trade, so to speak, in defense equipment with our NATO trading partners. We will submit this for the record. The ratios are large and largely in our favor.

In Germany, for instance, over the 5-year period, 1976 to 1980, it is 22 to 1 in our favor. We will submit this for the record.

[The information follows:]

BALANCE OF TRADE IN DEFENSE EQUIPMENT WITH EUROPEAN NATO TRADING PARTNERS

[Dollar amounts in millions]

Country (date of MoU)	Fiscal year—					Total 1976–80
	1976–77	1977	1978	1979	1980	
Belgium (December 1979):						
U.S. sales[1]	$17.5	$15.9	$32.6	$172.3	$223.4	$481.7
U.S. purchases[2]	$6.9	$2.1	$4.1	$7.6	$16.8	$37.4
Ratio	2.5:1	7.6:1	13:1	23:1	13:1	13:1
Denmark (January 1980):						
U.S. sales[1]	$18.9	$22.7	$19.6	$17.2	$179.3	$257.7
U.S. purchases[2]	$8.6	$3.6	$6.2	$7.9	$23.6	$49.9
Ratio	2.2:1	6.3:1	3.2:1	2.2:1	7.6:1	5.2:1
France (May 1978):						
U.S. sales[1]	$40.7	$36.1	$27.0	$24.7	$37.7	$166.2
U.S. purchases[2]	$5.7	$1.3	$2.2	$4.0	$2.5	$15.7
Ratio	7.1:1	28:1	12:1	6.2:1	15:1	11:1
Federal Republic of Germany (October 1978):						
U.S. sales[1]	$371.0	$300.2	$235.3	$255.2	$378.4	$1,540.1
U.S. purchases[2]	$29.2	$7.5	$2.7	$13.3	$18.1	$70.8
Ratio	13:1	40:1	37:1	19:1	21:1	22:1
Italy (September 1978):						
U.S. sales[1]	$137.3	$131.1	$125.4	$34.3	$108.7	$586.8
U.S. purchases[2]	$19.9	$4.0	$5.0	$0.5	$16.1	$45.5
Ratio	6.9:1	33:1	25:1	169:1	6.8:1	13:1
Netherlands (July 1978):						
U.S. sales[1]	$37.6	$104.7	$76.1	$117.8	$333.4	$669.6
U.S. purchases[2]	$5.1	$2.9	$2.0	$9.7	$26.8	$46.5
Ratio	7.4:1	36:1	38:1	12:1	12:1	14:1
Norway (May 1978):						
U.S. sales[1]	$23.8	$40.3	$42.3	$24.9	$214.2	$345.5

BALANCE OF TRADE IN DEFENSE EQUIPMENT WITH EUROPEAN NATO TRADING PARTNERS—Continued

[Dollar amounts in millions]

Country (date of MoU)	Fiscal year—					Total 1976–80
	1976–TT	1977	1978	1979	1980	
U.S. purchases[2]	$7.8	$7.9	$3.6	$15.1	$40.0	$74.4
Ratio	3.1:1	5.1:1	12:1	1.6:1	5.4:1	4.6:1
United Kingdom (September 1975):						
U.S. sales[1]	$233.6	$137.0	$106.1	$273.7	$369.9	$1,120.5
U.S. purchases[2]	$159.7	$119.0	$75.3	$76.8	$51.4	$462.2
Ratio	1.5:1	1.2:1	1.4:1	3.6:1	7.2:1	2.3:1
Total, Europe:						
U.S. sales[1]	$880.4	$788.0	$684.4	$970.1	$1,845.0	$5,167.9
U.S. purchases[2]	$242.9	$148.3	$101.1	$134.9	$195.3	$822.5
Ratio	3.6:1	5.3:1	6.8:1	7.2:1	9.4:1	6.3:1

[1] U.S. sales—Selected foreign military sales deliveries reported by Defense Security Assistance Agency plus commercial exports of selected munitions list items reported by Department of State.

[2] U.S. purchases—Imports of selected items for DOD use reported by Department of Commerce.

Note: The cataiog of selected items is limited to defense equipment, including component and spare parts. Transactions involving subsistance items, petroleum products, publications, training, repairs and other services are not included in the data presented. These figures are based on deliveries and were compiled from available records at DOD, State, and Commerce. Since the records used were not designed specifically for this purpose, the data represents a rather conservative estimate of the trend in defense trade. Beginning the later half of fiscal year 1982 we plan to use contracts and subcontracts awarded as a basis for computing balances. Our best guess is that reports based on orders placed would show an even greater balance in the U.S. favor.

Chairman TOWER. What is the trend over the years? Is the ratio in our favor increasing?

Dr. DELAUER. It is spotty in certain places. In the case of the one I just mentioned, the Federal Republic of Germany, it has gone up and down. It was about 13 to 1 early in 1976. In 1977 it went up to 40 to 1. In 1978, 87 to 1; 19 to 1 in 1979; and 22 to 1 in 1980. It is cyclical, it never went below 19 to 1 in the last 5 years.

Chairman TOWER. The United Kingdom has recently decided to purchase the Trident D–5 missiles from the United States.

What will this mean in terms of British purchases from the United States?

Dr. DELAUER. At the first summary of what it looks like as we project it over the period of their agreement, it is about a $3.8 billion cash flow to the United States.

Chairman TOWER. Do you have any figures on what this favorable balance in defense procurement means in terms of jobs in the United States?

Dr. DELAUER. I think we can give you a little bit of information on that.

Chairman TOWER. You can supply that for the record.

Dr. DELAUER. We will supply that for the record. It is in the order of a couple hundred thousand.

[The information follows:]

The Commerce Department estimates that $1 billion in sales generates approximately 24,000 jobs. The table entitled "Balance of Trade in Defense Equipment with European NATO Trading Partners," previously provided, shows a net balance in favor of the United States for transactions covering fiscal year 1976 through fiscal year 1980 of $4.3 billion. This then equates to approximately 103,200 jobs. The sale of the Trident D–5 to the United Kingdom, which I mentioned earlier could amount to $3.8 billion and equate to approximately 91,200 jobs.

Chairman TOWER. Is this economic benefit to the United States jeopardized by the Buy American provisions?

Dr. DeLauer. No question about it, Mr. Chairman. Let me give you a quick example. We have tried to make some estimate of what the administrative use vehicle issue might involve in regard to a common denominator which would be jobs. On the average it is about 890 jobs in the United States. Not insignificant particularly now with the automobile industry having its problems.

Having another 900 jobs will not save the U.S. automobile industry. On the other hand, stopping the German administrative use vehicle program in midstream could place in jeopardy sales from the United States to Germany of new defense projects amounting to a minimum of $535 million up to $2.5 billion over the next 10 years. This represents 13,400 to 59,250 new jobs for U.S. workers in defense industries.

Also, as a kind of footnote on the whole question of the administrative use vehicle, is the fact that over a 5-year period the Army has procured close to 52,000 nontactical vehicles for close to two-thirds of a billion dollars, and what we are talking about for this offshore procurement is about 10 to 11 percent.

I think that the advantage that is in our favor is being jeopardized by about 10 percent of the market.

Chairman Tower. Is it the policy of the United States to have a more balanced bilateral trade in defense procurement with allies? Do we sign agreements to that effect?

Mr. Eagleburger. Yes, sir, it clearly is. We believe it benefits both sides of the Atlantic. It is clearly our objective and has been for years.

RATIONALITY, STANDARDIZATION, INTEROPERABILITY

Chairman Tower. In fact, is this consistent with the Nunn-Culver amendment, which actually originated in this committee and tries to encourage more rationality, standardization, interoperability?

Dr. DeLauer. Yes, sir, it led to the whole question of increased emphasis on what is loosely called RSI, but the "I" is more important than even the standardization and certainly more important than the rationalization.

The whole question of interoperability is quite important to us. We would like to continue this program that we have underway. It got underway in the previous administration and we are carrying it along now.

Maybe Mr. Perle has something else to say.

Mr. Perle. Apart from the diplomatic consequences, enacting legislation that makes it impossible for the Government to carry out commitments previously made has obvious adverse consequences.

There is a real concern here about whether this legislation will end up strengthening the overall military capability of the alliance. I think it is clear that the United States enjoys a technological and industrial advantage with respect to a very large number of weapon systems that we can simply produce better and more cheaply than our allies.

It makes very good sense in terms of the overall capability of the alliance for us to produce those weapons and export them to our

allies. In order to do that we have to be prepared to import those things from the allies that the allies can do efficiently. The end result of this trade, consistent with the classic economic theory in the real world, is that we end up with more defense at an expenditure of fewer dollars.

Every time one imports a product that is more efficiently produced in Europe it has the potential to cost possible American competitors a share of the market. But we export so very much more and as a consequence our allies spend their defense currencies more effectively. On balance the alliance as a whole as well as our economy are very much improved by productive trade in defense articles where it is possible.

Broad-gauged amendments that preclude that, even where it makes sense to both sides, adversely affect our defense as well as creating diplomatic problems.

Chairman TOWER. Thank you.

Senator Stennis?

NATO ALLIANCE

Senator STENNIS. I lean strongly, and always have, toward support of NATO. I think it has been by far more successful than any other alliance we have had.

Were either of you in the Government when we first entered this treaty?

Dr. DELAUER. I was in Government, but I was a young lieutenant, junior grade, in the Navy at that time.

Senator STENNIS. We are going to have to pass on money resolutions here in a very few weeks. The President has made his proposal. We don't know what our committee or the Budget Committee is going to do, but we have to get down to dollars and cents.

Now, you are not asking for a specific appropriation here this morning as I understand your testimony?

Dr. DELAUER. No; Senator Stennis.

Senator STENNIS. What are you asking for?

Mr. PERLE. That is too good an invitation to pass up, Senator Stennis.

What I think we are asking for with respect to some restrictive legislation that has been passed is legislative relief so that we can better invest those dollars that you are going to appropriate for us. We can do it more efficiently if we are not precluded from sensible trade arrangements with our allies.

Senator STENNIS. I know you have that complaint. I was not referring to that. We used to have terrific debates on the floor of the Senate on riders to appropriation bills to bring half the troops home. Now, I don't think we will have any this year. People are now asking us how much are we spending on NATO.

Can you give us an estimate on that? It seems you ought to be able to give us some kind of estimate. We hear estimates from the military, but I would like to have a figure from you, if you have one—I am talking about appropriated money.

Mr. Perle, you should have a figure in mind.

Mr. PERLE. Senator Stennis, it is awfully difficult to separate that portion of the defense budget which supports our NATO com-

mitment from that portion that supports our commitment throughout the world. There are ways of looking at it that produce figures on the order of 60 percent of the budget over all. I believe that is too narrow a way to conceive of the capability we have for the defense of the Alliance.

Obviously the ships, the planes, and the soldiers can all be applied to the defense of our interests elsewhere in the world. Sixty percent is a percent that can be derived by some analysis.

Senator STENNIS. Sixty percent of what?

Mr. PERLE. Of the total defense budget.

Senator STENNIS. Sixty percent of the defense budget is attributable to the cost of NATO?

Mr. PERLE. You can derive that figure by some methods of analysis. I believe that is a misleading figure. I never thought that was a useful figure.

Senator STENNIS. You think that is too high?

Mr. PERLE. I think it fails to recognize that the forces committed to the defense of the Alliance constitute part of our overall capability and to attribute them only to NATO would be to understate their importance in the defense of the United States on a global basis.

Senator STENNIS. I am not trying to pin you down, but we have these debates over here, and I have to have an answer for my colleagues. They ask me in the cloakroom, if not elsewhere, what was it costing us. I had several different answers.

Mr. PERLE. Senator, figures have been developed over the years. Brookings Institute used to give us figures in those days when Senator Mansfield had his amendment. Those figures were misleading in the sense that if we didn't have to worry about the defense of Europe we could not subtract from the budget and remain equally safe the amount that was attributed to NATO.

In other words, we could not reduce the defense budget by 60 percent clearly if for one reason or another it were not necessary to defend Europe. We would still need that capability so long as the Soviet Union maintains the military force that it in fact does maintain. I don't believe any figure is especially illuminating.

Senator Stennis.

I judge you don't have in mind a figure about what percent or an estimate to make, is that correct? Sixty percent seems high to me.

Mr. PERLE. It seems mighty high to me, too. I think the problem is the way the estimate is made which I think is misleading.

Senator Stennis. You don't have any figure to suggest?

Mr. PERLE. I don't, Senator.

Chairman TOWER. Neither one of you?

Dr. DELAUER. Senator Stennis, let me give you a slightly different perspective of the division of effort.

Presently we have deployed in Europe five Army division equivalents. They are the most expensive divisions that we have. We have provisions for pre-positioned equipment for almost four more divisions.

We have deployed eight fighter wings. That is about 25 percent of the fighter wings we would employ in NATO. The other ones are positioned to be deployed within 3 weeks. So you can say that

much of the force which can be deployed in 3 weeks is really funded for the purpose of NATO.

We have 233 Navy combatants and amphibious ships deployed or assigned to the Atlantic and Mediterranean area. That is a great portion of our fleet activity. Then when you see how much of the Strategic Air Command allocation should be for Europe, you can't tell. Maybe 60 percent of the funds is too high, but certainly it would not be below 40 percent.

So we are talking about half and half. But that is the big threat. The big threat is against Europe.

Senator STENNIS. Well, we want something to use in our debates and that is approximately the best estimate you can give?

Please provide for the record an estimate defining its boundaries, the basis which you do put on it, and then come to some percentage or some measurement that you can use; and put all the limitations and explanations on it that you want to, because it is highly uncertain.

I think it is needed. There is a kind of restart of debate about this matter, as I understand from what you gentlemen say. Thank you, gentlemen.

Chairman TOWER. Senator Stennis, I would like to request that they also tell us approximately what it would cost to relocate those forces back here in the United States. Would you also let us know whether or not that figure includes those units here in the States that are dedicated to NATO and would be committed to NATO in the event of hostilities or high tension?

Dr. DELAUER. We will do that, Mr. Chairman. We have been talking about some of those numbers and we can make them available to you, sir.

[The information appears on p. 1207.]

Chairman TOWER. I think we will proceed on the assumption that we would not simply disband those six divisions if we took them out of Europe. Senator Cohen?

Senator COHEN. Thank you, Mr. Chairman.

I don't want to spoil this party and engage in any truculent assessments of the nature of the relations between our allies and the United States, but there seems to be some gap between what I have been reading and what I have been hearing today.

NATO ALLIES COOPERATION

I don't want to contribute to the fracturing of the alliance, but I also don't want to paint over any differences that exist on the threat that faces us or on the degree of cooperation that currently exists.

I read an article from Newsweek, "Can the Alliance Be Saved?" Business Week; "Shakey State of NATO," Time magazine; "Something Is Deeply Wrong With the Atlantic Alliance," Henry Kissinger; "Let Us Tell Our Allies Uncle Sucker Is Dead," William Greider, who gave David Stockman a higher profile in the Atlantic Monthly.

Leonard Sullivan, Jr., wrote a piece in the Armed Forces Journal last fall, and he said:

It is simply preposterous to assume the United States with less than 28 percent of the population of the OECD countries and less than 35 percent of their GNP should be providing as much as 40 percent of their active military manpower and almost 70 percent of the defense expenditures. If greater participation is not forthcoming from our friends and allies around the world, the United States must for its own good readjust its own security strategy to bring its expectations in line with its capabilities over the long haul.

I suspect Mr. Sullivan represents a significant sentiment in this country. I will tell you it is my own belief that the sentiment in the United States goes far beyond any specific dollars for specific weapons or specific commitment in Europe or elsewhere. It goes well beyond the question of whether the United States should spend 7 percent of its GNP on defense, while the other NATO countries spend less than 4 percent, Canada less than 2 percent, and Japan less than 1 percent.

The growing disenchantment in this country has to do with the perception that while we may share the same ideals and interests that have served to unite us, there is a fundamental disagreement over the social and military trends that threaten to undermine this very existence.

U.S. RESPONSIBILITY?

Mr. Perle had the opportunity to join the chairman, myself, and other members of the Armed Services Committee at the Wehrkunde conference in Germany recently. You recall Dr. Apel said in his speech that he welcomed the worldwide commitment of the United States for the sake of the entire West.

What is the responsibility of the United States? Is it to defend the prosperity of Europe and Japan by defending the Persian Gulf? Is it going to deploy a $20 or $30 billion Rapid Deployment Force to the Middle East while Europe helps to build a natural gas pipeline from the Soviet Union to Europe?

Is it to defend South Korea while Japan is involved in extensive trade with North Korea or helps to build one of the world's largest drydocks for the Soviet Navy, which is a threat imperiling the sealanes we are so concerned about today?

RAPID DEPLOYMENT FORCE

Is it going to build an RDF? It is wonderful to have an RDF, provided you don't disturb the troop levels in Europe? The fact of the matter is, are we going to tax ourselves to defend the interests that our allies seem to think unworthy of their own defending, while they are rushing to go find a more stable supply of energy?

I for one have to tell you there is no justification in my mind for NATO's reluctance to either help defend other areas of vital interest or compensate the United States for undertaking the burden. It is simply not going to be the case that we are going to be called upon to defend the Persian Gulf, which is of more interest to our allies than it is to us, and to pick up the entire tab.

I don't want to spoil the party, Mr. Chairman, but it seems to me we are misreading the mood of this Congress and this country if we think we are going to undertake those kinds of expenditures.

SOVIET PIPELINE

I mentioned the pipeline. My own position, I made it clear during that conference, is that I think it is a fundamental mistake for the pipeline to be built. I think you, Mr. Perle, and others within State and Defense would have the same perception, at least that it is far better for the Soviet Union to spend 10 percent of its GNP for commercial and economic development and purposes than 15 percent of the GNP for military purposes.

That is a debate that is perhaps beyond the realm now. We can't do anything about it.

I also indicated we are not in a position to lecture our allies, since we are not prepared to undertake some sacrifice in the way of grain sales on our own part. We apparently love our profits more than we hate communism. That unfortunately is the view shared by our allies as well.

It seems to me that we are never going to come to grips with the problem. You multiply it by just one example, I think, of a disenchantment which is growing each day. That disenchantment is that there is a perception in this country that many of our European friends are walking toward the Berlin wall with their eyes closed, and unless certain things change they will be behind the Berlin wall with their hands up.

That is my own judgment on that. It seems to me that we are going in different directions and that what we have to have is not simply a question of whether we put 3 percent of real defense increases or 5 percent or 7 percent. We will never be able to achieve an effective defense policy unless we have an effective foreign policy. That means a coherent foreign policy which is shared by our allies.

We welcome ourselves to the worldwide commitment we have undertaken, as Dr. Apel has suggested. We assume that if we are bearing the burdens of leadership, we are going to have some followership. There does not seem to be a good deal of followership, as I see it, in terms of assessing the nature of the threat or what has to be done to confront it.

EUROPEAN DEFENSE

I don't believe we have the capability of defending the central front in Europe and at the same time projecting force into the Persian Gulf. I think that what we have to do is to recognize the fact that our allies are going to have to undertake to do more in terms of defending their homeland while we utilize the capabilities, the maritime capabilities, that we have of projecting forces to other parts of the globe which are just as vital and just as threatening to the security of the West as is the central front.

That is more in the way of a statement, Mr. Chairman. As you no doubt noted, it is not a question. It seems to me we are sort of papering over some fundamental differences, where the State Department and Defense come in and say, "Well, we share the same view."

Frankly, I think there is a greater gap between Defense and State than what we see here today. Thank you, Mr. Chairman.

Chairman TOWER. I might add, Senator Cohen, that I think you would hardly regard the statement I made in Munich as papering over.

Senator COHEN. You were not as truculent as you otherwise are, Mr. Chairman.

Mr. EAGLEBURGER. I don't want to spoil the party either, but I would like a couple minutes.

Senator, since I have been engaged in NATO affairs, which is off and on for the last 20 years, I can't remember how many times I have heard the phrase "At this critical time in the Alliance." It is never an easy relationship—it is unlike the Warsaw Pact relationship—of several states, most of them democratically elected.

We have to recognize that that very strength of this alliance of ours, and I contend it is the greatest strength of the Alliance, is also on occasion a weakness because we do not run NATO affairs from Washington, nor do I think any of us believe we should.

Statistics can be used in many different ways. The OECD, for example, I would point out, contains countries like Sweden, Switzerland, and Austria and a number of neutral countries so that the figures can be somewhat skewed.

I could use a different set of figures that, for example, European nations during peacetime provide 90 percent of NATO's ground forces, 75 percent of the air forces, and 80 percent of its naval forces. Virtually all our allies have universal conscription.

Senator COHEN. So what?

Mr. EAGLEBURGER. I was about to say that does not prove much either.

I think the basic point you make, and all three of us at this table would share, is that of course we must do everything we can reasonably be expected to do to try to make our allies do more. We do not, any of us at this table, I believe, feel that our allies are doing enough.

I suspect that the issue will become, at least in my case—I can't speak for my colleagues--one of choosing the best way of in fact encouraging and moving our allies to do more; and there I think the issue is at least in part one of arguing whether things like threats of troop withdrawals from Europe will obtain the results that I think we all are searching for. I would argue strenuously that they do not.

In essence it seems to me that the best way of convincing the allies that they must do more is, one, to set the example ourselves, as we have now and, second, through constant consultation and argument, to use the term, and debate with them and try to persuade them and move them to do more. I believe personally that over the last 30 years of the history of the alliance by and large—never perfectly but by and large—that we have succeeded far more than we have failed.

Senator COHEN. Let us talk about the pipeline, by way of example. There is, I think, a very real danger that Western Europe is going to find itself in a position of being subjected to economic and energy blackmail.

I recall when Chancellor Schmidt wrote a book, he said NATO must be structured in such a way that each individual member must be so strong militarily, so strong economically, that it can't be

subject to blackmail by the Soviet Union. He wrote that book back in the sixties. I think it was good advice for the sixties, seventies, and eighties. The question is: Will you alter a paragraph and add that NATO must be so structured to be so militarily strong, economically strong, and energy independent that it can never be subject to energy blackmail?

That, I think, is an issue which many of us are concerned about. I don't think we can win that argument. We tried and we lost. We lost for a number of different reasons, largely because we didn't set the example either.

The President said we are against the pipeline. Three weeks later we authorized the sale of Caterpillar pipe-laying equipment to the Soviet Union. The Japanese took one look at that and said, the United States is not serious, they are pursuing their self-interests once again.

I can't fault the general answer or West Europeans for moving ahead when we fail to set an example ourselves. The fact of the matter is that there is a different percentage of the direction we are going in, and we are again responsible. We can criticize the separate détente for Europe, and they can come back and say, "Don't forget who invented the policy, the United States."

Thank you, Mr. Chairman, for the opportunity to raise some issues about allied burden sharing. Again I reiterate, we cannot resolve this issue by just talking in terms of military expenditures. We have to talk about foreign policy objectives and make sure that we share that as well as military undertakings.

Chairman TOWER. Senator Byrd.

THE COST FOR NATO

Senator BYRD. When I first became exposed to NATO in 1951 shortly after it was organized I was in Europe as a foreign correspondent for a group of newspapers. I supported NATO then, I support NATO now. But I think that Senator Cohen has articulated well the problems and the situation facing the American people and the American Congress today.

I don't know just what the purpose of this meeting today is. Here we have some important officials of Government here to tell us how fine NATO is, what a great organization it is, how important it is that we maintain our place in NATO, and yet none can say what the cost is.

You have no idea what the cost is. It seems to me that illustrates the problem facing the American people today. The American Government does not consider cost. I think it is important that we know the cost.

Senator Stennis asked the key question and no one knows the answer. I asked that question of the Secretary of Defense, Elliott Richardson, some years ago. The answer he gave was so totally inaccurate and totally incorrect that it had to be replaced in the record by other figures.

Senator Stennis said he didn't want to press the point, but I will press the point. I think you should submit to the committee in writing what it costs the American people to be a part of NATO. I support NATO.

[The information appears on p. 1207.]

Now what specifically are we here for today? You mentioned, Mr. Perle, some legislation. What legislation are you for and what are you against?

Mr. PERLE. Senator, the legislation that we are against is some legislative restrictions that make it difficult.

Senator Byrd. Are they in the law now or are they about to be put in the law?

Mr. PERLE. They are there now.

Senator BYRD. What do you want to see taken out?

Mr. PERLE. In particular there is an amendment that, according to interpretation, dealing with specialty metals, would interfere with a number of ongoing programs. We would like to see that repealed. There is language with the Appropriations Committee now on this in the supplemental.

Senator BYRD. I don't understand what the meeting is all about today. The only thing any of you have said in your statements is what a great organization NATO is. On page 10 of Mr. Eagleburger's statement he says: "In closing, let me assure you that we are not complacent, nor inactive. We have engaged the allies extensively in discussions of what needs to be done to increase the overall effort," and so forth.

JAPANESE DEFENSE COMMITMENTS

That statement has been submitted to this committee for almost 20 years, year after year. Discussions are what it has always been. Do you think Japan should be doing more in the way of defense of its part of the world?

Mr. EAGLEBURGER. Yes, sir, we do believe the Japanese should be doing more than they are now doing. In fact, when the Japanese Foreign Minister was in Washington this week the Secretary of State saw him and the two subjects with regard to the general question of trade and also with regard to Japanese defense spending formed a serious part of the discussion.

Senator BYRD. What has been gained by all the discussions over the years with Japan in regard to defense?

Mr. EAGLEBURGER. Under this year's budget—and I will give you some examples of some things that have been gained, Senator—Japan will spend 0.93 percent of GNP on defense. That is not very much, we agree. However, Japan is spending over 1 percent of its GNP if we were to use standard NATO methods of calculations which include items such as military pensions.

Senator BYRD. That means totally nothing.

Mr. EAGLEBURGER. That is an increase of 7.76 percent in the defense budget of Japan which was just passed by the lower house. It exceeded what was asked for by the Finance Ministry.

I can state that we have begun to make some progress with the Japanese because they are increasing the amount that they are spending on their own defense.

Senator BYRD. On their own defense. That is a different thing. You are not saying anything about participating in the defense of their part of the world.

Mr. EAGLEBURGER. Senator, what we and the Japanese have agreed upon is Japan should assume primary responsibility for its own air defense and patrol of sea lanes out to 1,000 miles. That is something we were doing that they will take over.

Senator BYRD. When will that be taken over?

Mr. EAGLEBURGER. I understand the agreement has been reached. I don't know whether they have in fact assumed this responsibility yet or will assume it soon.

MINERAL AND PETROLEUM RESOURCES

Senator BYRD. You in your statement say that there are 100 independent nations controlling extensive resources.

Would you name four or five of those key countries that control extensive resources?

Mr. EAGLEBURGER. Saudi Arabia, in fact you could name several in the Persian Gulf that sit on great quantities of oil, Angola and several other African countries obviously have fairly substantial mineral and petroleum resources.

In Latin America, Bolivia with tin, Malaya with tin. Mexico again with petroleum.

Senator BYRD. Do any of those you have named have resources as extensive as South Africa?

Mr. EAGLEBURGER. In terms of what is developed, no. In terms of what is realizable, obviously with the exception of oil where clearly Saudi Arabia is dominant, but in terms of resources already developed, no, most of them would not reach the level of South Africa.

Senator BYRD. What is your attitude toward trade with South Africa?

SOUTH AFRICAN TRADE

Mr. EAGLEBURGER. My attitude is in fact as the administration's attitude is. I think that it should be carried on. Obviously that is not a reflection, however, on the question of the internal structure of the society.

Senator BYRD. So it is your view and the administration's view that regardless of the internal structure of the society, as you expressed it, this country should have full and complete trade relations with South Africa?

Mr. EAGLEBURGER. Senator, with the danger that the use of the words full and complete may refer to some laws that I don't know anything about, but in general, yes, sir, that is my view.

Senator BYRD. I note in your statement you say a decade of détente in Europe has failed to moderate Soviet behavior or to stem the growth of Soviet military might. To me that is a very significant statement. I am very glad to read it.

I remember that just a few years ago when you were one of the chief exponents, chief advocates of détente , and perhaps, I don't know, maybe one of the architects of détente, I opposed the State Department on détente in 1975 and 1976. I thought it was a great mistake.

I am glad to note that you who played such an active role in that matter state for the record that a decade of détente in Europe has failed to stem the growth of Soviet military might.

Now, to get back to the purpose of this meeting, I am still unclear as to what the purpose is. In none of these statements that I have read has anything been said about legislation except Mr. Perle just a little while ago mentioned something about wanting to remove some restrictions on steel.

Did I understand you correctly?

Dr. DeLauer. That is correct.

Senator BYRD. Is that the purpose of the meeting today?

NATO COOPERATION

Dr. DELAUER. I think there is an additional purpose, Senator Byrd. I think it was stated by the chairman in his opening remarks. There has been a concern by the people we work with, particularly in NATO, that there is an attitude change on this question of strong cooperation. I think we are here today to raise some alarms in regard to that particular question and answer questions from you why we think these things are getting a slight head wind against cooperation. We have mentioned a few of them that have come out of legislation during the last appropriations action. I think that is the purpose.

We think there are some impediments to continuing our close cooperation with NATO. The Alliance is important. We want to continue it. There are weaknesses best stated by Secretary Eagleburger on not being perfect.

I think one of our purposes here today in front of this committee, which is one that is concerned with security, is to say "Look, we would like to let you know that we are having some problems convincing them that we really do want to have and continue to have this close cooperation." I think that is our purpose.

Chairman TOWER. Senator, I think that it is not a question that they should be required to answer, but I should be required to answer.

This session today is at the initiative of the committee, not at the initiative of the administration. As chairman I felt the need to have a hearing on the whole issue of troop withdrawals from Western Europe and on burdensharing. So, the function of this meeting is to gather information for the use of the committee on what I consider to be vital issues.

I believe that we have already received some useful testimony in this connection.

Senator COHEN. Will the Chair agree that the substitution took place in that colloquy?

[Dr. DeLauer left. Deputy Secretary of Defense Frank C. Carlucci III, took his place.]

Chairman TOWER. The Deputy Secretary was originally scheduled to testify, but was required to be at the White House. That is why he is late.

NATO COSTS

Senator STENNIS. To be sure we understand each other, Mr. Perle, Senator Byrd thought I had said that I would not press for a figure. I really intended to say I would not press for a figure now,

but you were going to give us a figure in writing with such explanation as you wished for the record.

Is that the way you understand it, Mr. Perle?

Mr. PERLE. Yes; Senator Stennis, that is correct.

Chairman TOWER. So that we get the right kind of answer, do you want to include in this what we pay the troops over there and the equipment value and all that sort of thing?

Senator STENNIS. I think we have to leave it to them to put such addenda on it as they wish.

Senator BYRD. I don't think we should tell them how to compute cost. I think we have a right to ask them what the cost is and submit to us the figures.

Chairman TOWER. But you proceed on the assumption that that would include troops in this country that would be dedicated to NATO in the event of hostilities?

In other words, you are asking for figures. I think we ought to make sure what you want.

Senator BYRD. I want to know what it costs the American taxpayer to participate as we are participating in the North Atlantic Treaty Organization which I favor.

Senator STENNIS. The dollar cost with some dimension there of where the lines are drawn.

Senator BYRD. I don't want to tell them how to answer it. I think they have to submit to us what the cost is or should submit to us what the cost is.

Chairman TOWER. I think we should be sure what we are getting. We will proceed on the assumption that we would disband that aspect of the military if we were not maintaining it in NATO.

In other words, what you are really after is what is the cost over and above maintaining this kind of establishment, maintaining them in Europe? Is that primarily what you are interested in?

Senator BYRD. What I am interested in, which seems to me to be a reasonable question, is the United States is participating as a member of the North Atlantic Treaty Organization and what is the cost to the taxpayers to participate in that?

Chairman TOWER. Do you also want to know what the cost would be if we relocated that force back in the United States?

Senator BYRD. That is fine. The more information we can get the better.

Senator COHEN. Could I just raise a question?

I think what we have to do is say what our total defense expenditures are. How much is dedicated to defending our interests in the NATO alliance? That would include not only troops there, but troops here, the ones that are being trained into a state of readiness and equipment that would be dedicated to reenforcement.

Chairman TOWER. That should be included.

[The information follows:]

COST OF U.S. DEFENSE COMMITMENT TO NATO

In recent years, the Department of Defense has provided a summary of the costs of the U.S. contribution to NATO. This summary has been prepared by allocating U.S. forces to various regions of the world where they might be needed and then determining the cost of maintaining those forces. The Department is currently reviewing and updating the methodology to solve some of the shortcomings involved in such an approach. The two most salient shortcomings are:

U.S. forces are multipurpose. While large U.S. forces are available to meet any aggression by the Soviet Union and its allies they are also available to meet a threat to U.S. security in other regions of the globe.

Much of the U.S. force structure not directly allocable to Europe supports our NATO strategy and deterrent posture indirectly. Our strategic nuclear forces and RDJTF are examples.

With respect to withdrawals, we have developed an interim estimate of the effect on Defense outlays of withdrawing troops from Europe and restationing them in the United States. In all cases, the costs of returning the forces and headquarters and of refurbishing or constructing the appropriate base facilities in Conus result in increased outlays through the next five years.

RESTATIONING COSTS: ILLUSTRATIVE U.S. TROOP WITHDRAWALS FROM EUROPE

[Outlays, in billions of dollars]

	Fiscal year—	
	1983	1983–87
Option 1: 1 division, 2 TFW	0.1	0.8
Option 2: 1 corps, 5 TFW	0.4	8.5
Option 3: All Europe-deployed U.S.A. and U.S.A.F. forces	0.8	17.0

If it is our intent to maintain the capability to defend against aggression by the Warsaw Pact, additional mobility forces must be purchased to transport the troops back to Europe when necessary. These costs are shown in the table below.

RESTATIONING COSTS WITH PROVISION OF MOBILITY FORCES

[TOA, in billions of dollars]

	Fiscal year—	
	1983	1983–87
Option 1:		
1 division, 1 TFW restationing costs	0.1	0.8
Additional mobility	2.1	4.3
Total	2.2	5.1
Option 2:		
1 corps, 5 TFW restationing costs	.4	8.5
Additional mobility	2.2	11.2
Total	2.6	19.7
Option 3:		
All U.S.A. and U.S.A.F. Forces restationing costs	.8	17.0
Additional mobility	–	–
Total	.8	17.0

In options 1 and 2, enough mobility assets are procured (airlift and fast sealift) to return these forces to Europe by M+30. In option 3—complete USA and USAF withdrawal—no such capability is procured due to its enormous cost, and therefore, no capability for rapid return exists.

Costs in these three options are based on generic costs of restationing Army and Air Force units in both new and refurbished bases in the United States. We are about to conduct a study of the specific basing actions that would probably be taken if any of these three levels of withdrawal were to be undertaken. We will then price out these actions to obtain a more precise estimate of the costs of withdrawal.

If the costs of restationing U.S. forces in Europe seem high, it must be remembered that we are talking of moving and relocating about one-third of our active Air Force and Army tactical forces from the bases where they have been permanently stationed for 37 years. This involves a massive movement of men and material (e.g.,

800,000 tons of Army ammunition), not to speak of rethinking our entire NATO strategy.

STATEMENT OF HON. FRANK C. CARLUCCI III, DEPUTY SECRETARY OF DEFENSE

Mr. CARLUCCI. There are some complications. For example, how do you calculate the strategic airlift or rapid sealift that are fundable. It could be used for NATO, Southwest Asia, or Korea. We have to use dedicated forces.

Chairman TOWER. Senator Humphrey.

Senator HUMPHREY. Secretary Carlucci, I read your statement. It is pretty much in accord with what our other witnesses have said this morning. It occurs to me that no matter how you struggle to cast our allies, including Japan, in a favorable light, the fact is that our allies are enjoying their freedom today, at least they are subsidized at a very great expense of the taxpayers of the United States.

Take the case of the Persian Gulf. Here we are sticking our necks out a mile claiming we are going to defend the Persian Gulf by force, if necessary, even though we are not in a position to do it. We are spending all this money pre-positioning supplies to build sea and airlift capabilities and our allies are doing virtually nothing that I am aware of to assist in that situation.

Yet they are far more dependent on that oil than we. Ninety percent of Japan's oil comes through the Straits of Hormuz. Europe's is 60 percent. Ours is 25 percent and declining.

How can you expect the American people to buy this kind of an arrangement? What are we going to do about it? It does not seem as though sweet-talking our allies is going to work. We have been doing it for years and it is not getting in the news anywhere.

Mr. CARLUCCI. Secretary Eagleburger made the point that the situation in which we find ourselves is rather new because we have been allowing our defense capability over the past 10 years to erode while our allies have been investing in real terms in their defense. It is a little hard for us to suddenly become self-righteous.

While it is perhaps true to say that Europe is enjoying its freedom at the expense of the U.S. taxpayer, the converse is also true and the U.S. taxpayer is enjoying a substantially enhanced defense capability as a result of European contributions. That is what the alliance is all about.

PERSIAN GULF DEFENSE

As far as the Persian Gulf is concerned, we are of course in a dialog with our allies on what they might contribute both in terms of military assistance, and some of them such as the British do have forces in the area, but also what they can contribute in economic terms and, in some cases, in diplomatic terms.

I might also point out the question of transit rights is an extremely important one. We would hardly be able to maintain our commitment in the Persian Gulf area if we could not avail ourselves of transit facilities, and that is an extremely important contribution of our European allies.

Senator HUMPHREY. The point I tried to make by bringing up the Persian Gulf is that while our allies have been more diligent in tending to matters in the European sphere, we have been trying to attend to matters all around the world.

It seems to me that is a point that is lost on us. They always say they are doing a better job in Europe, but we have the whole world on our hands, and we are spending a tremendous amount of money and resources all around the world. No one can suggest we are not doing our fair share. We are doing far more than our fair share.

I believe the American people are running out of patience, Mr. Secretary. There is no way that they are going to put up with this much longer unless the administration finds a way to deal extensively behind the scenes and seeks a solution to some of the problems with our clients.

It is just ridiculous that the United States should have to bear such a huge proportion of the burden while other countries as prosperous as, in some cases more than we, are spending significantly less when you look at the whole world picture.

You talk about transit rights for oil coming out of the Persian Gulf. It seems to me the situation is the other way around. We are protecting the sea lanes on which they are dependent. They are not doing us any favors.

Mr. CARLUCCI. We, of course, are also dependent on those sea lanes. It is true we have worldwide responsibility precisely because we are facing a worldwide threat.

Once again the support that we might get from, say, the British or French Naval Forces is important in enabling us to meet that worldwide threat. That is of course a substitution effect. If we did not have some effort on the part of European allies, we would find ourselves obliged to increase our forces even more than we are requesting today.

Senator HUMPHREY. It just seems to me that this debate is unending. I hope it is clear to the administration that the American people are running out of patience and it will have a bad effect on our alliance if we cannot find a way of forcing, if necessary, our allies, particularly Japan, to bear a much larger share of the burden.

Mr. CARLUCCI. If I may, Mr. Chairman, I think we have to distinguish between our allies. For example, this morning I had a meeting with the President of Italy. There is an ally that is contributing a great deal. They are moving ahead on the cruise missile basing, and have been extremely supportive in the NATO alliance.

Yet the balance of defense expenditures is totally adverse to Italy. That is to say, we are unable in the balance of defense trade with Italy to maintain the full alliance and they have a very legitimate complaint when we have signed an MOU talking about a two-way street. We have to be careful not to overgeneralize.

Senator HUMPHREY. I agree. At the same time let us not apologize for those who clearly are enjoying a subsidized right. They must bear their full share of responsibility.

INCREASED ALLIED PARTICIPATION

Mr. CARLUCCI. We are actively involved with all our allies urging them to increase their participation, sir.

Senator HUMPHREY. Let me close by suggesting that we are going to have to resort to something stronger than reasonable persuasion. I think we are going to have to go behind the scenes and threaten some kind of sanction or action if within some reasonable period of time we don't see some progress.

Mr. CARLUCCI. I personally feel, and I will defer to the State Department on this, Secretary Eagleburger, that the threat of sanctions would be counterproductive, just at a time when we think we are beginning to make some progress, as my testimony indicates.

Mr. EAGLEBURGER. The only thing I would add, to come back to what I said to Senator Cohen, I don't think any of us argue that more must be done and we are trying to see that more is done. I would agree with Secretary Carlucci that threats and sanctions really have to be looked at carefully because they go to the very heart of the alliance.

After all, I think there is at least good reason to believe that on the basis of what we have seen done over the course of the last decade we can indeed persuade the allies to do more.

I think if you move to things such as sanctions, things of that sort, you tend very quickly to get into the sorts of debates that will in fact make it more difficult rather than less difficult for us to achieve more from our allies and in the last analysis the question with regard to the alliance simply has to be: Is it in the U.S. national interest or is it not?

I think the answer to that by everybody in this room is that clearly it is.

Senator HUMPHREY. Of course it is in our interest to maintain military capability around the world. That does not mean it is in our interest to bear a disproportionate share of the cost. That is the bottom line.

Chairman TOWER. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

I don't think we have ever heard any rhetoric from this administration different than a giant rationalization for sticking the American taxpayers with an unfair burden of defending NATO and Japan and that continues this morning. This administration emphasizes all the other things that our allies do. They emphasize the fact there are lots of ways of measuring defense contributions.

THREE PERCENT REAL GROWTH

The hard fact is, and I haven't heard a word about that this morning, not one word, that in 1978 there was an agreement which was reached by President Carter, the Prime Minister of England and other heads of NATO at a summit meeting that there would be 3-percent real growth in the military budgets of those countries.

The first thing this administration did when it took office, hardly before the ink was dry on the nomination of the Secretary of Defense, was to undercut that 3-percent commitment. The Secretary of Defense said there is nothing magic about those fixed percentages.

Of course our allies immediately understood that that meant they were off the hook and they have proven they understood they were off the hook. Listen to these averages: 2.6 average real growth in NATO defense budget in 1980. In 1981 that declined to between 2.2 to 2.6 percent. In 1982 the preliminary estimate is that that has now declined to somewhere between 1.6 and 2.1 percent.

So we have seen a dramatic decline in the real increase in defense budgets which were committed to by our NATO allies, committed to at a high level, at as high a level as you could reach, the President and other heads of governments.

We have tried in this committee to pressure this administration to at least disclose what our allies are not doing.

BURDEN-SHARING REPORT

I offered an amendment a couple years ago to require such disclosure in a burden-sharing report. There was opposition to that in the administration. We adopted it anyway. That burden-sharing report shows some pretty sad results from the kind of approach that this administration is taking.

Mr. Eagleburger has said the way to do this is through quiet diplomacy, through example. What is the example? We have a 13 percent increase in real growth projected for fiscal 1983. Our NATO allies are averaging around 1 to 2 percent in 1982. Germany is at zero percent. I have not even heard about that this morning, not a word, zero percent real growth in the German defense budget.

We are talking about burden sharing. I haven't heard that this morning. Zero percent real growth in 1982 for Germany is not burden sharing.

Mr. CARLUCCI. That is not a certainty.

Senator LEVIN. That is the estimate we are getting from your own department.

Mr. CARLUCCI. The German budget process is an evolving process where you can't really determine the growth rate until after the year has passed.

Senator LEVIN. That is what we have gotten from sources inside the administration. Is that figure wrong? Is that NATO average not going to be from 1 to 2 percent?

Mr. CARLUCCI. That is the current estimate, but that will probably change. It will probably go up as the year evolves, as it traditionally has.

Senator LEVIN. Would you agree that the figures are declining in terms of NATO contributions as measured by the commitment they made to 3-percent real growth? Would you agree it is 2.6 percent for 1980? It was between 2.2 and 2.6 percent in 1981 and the weighted average could be in the range of 1.6 to 2.1 percent in 1982.

Do you agree with those figures?

Mr. CARLUCCI. I don't know about the latter figure.

Senator LEVIN. I am reading from your own DOD report.

Mr. CARLUCCI. I agree with the 2.2 and 2.6 figures.

Senator LEVIN. Reading from your report, weighted NATO average could be in the range of 1.6 to 2.1 percent for 1982?

Mr. CARLUCCI. That of course is a projection, speculation.

Senator LEVIN. That is what I am talking about, projection, the figures are going down instead of up.

Mr. CARLUCCI. If I may address a couple points you made.

First of all, on the 3 percent I think we have clarified it several times. I, in fact, testified shortly after Secretary Weinberger's confirmation hearing and we clarified then that we do regard 3 percent as one measure. We were, however, interested in output measures as well. We thought it was not a particularly productive exercise to put so much emphasis on input measures.

The second point, let me reiterate what was said earlier, what Secretary Eagleburger has said: In prior years it has been the United States that has not been investing in real terms. Certainly the situation has turned around. We do find ourselves in a new situation.

To put the matter in perspective, you have to use more than just the percentage increase in real terms. You have to look at some of the things that we laid out in my statement, the question of manpower contributions, the question of infrastructure, and you have to put the whole issue in historical perspective.

Once again we agree that our allies should do more and we are urging them to do more, but I don't think that it is fair to characterize them as getting a free ride on the backs of the American taxpayer.

INFRASTRUCTURE

Senator LEVIN. You want to look at infrastructure in prior years. All of that existed in 1978, nothing has changed. When the 3-percent agreement was reached—you call it a measure. I am intrigued by your description, 3 percent of real growth is a measure.

It is not a measure. It is a commitment that was made at the highest level of Government. Not just one measure, how much is infrastructure? How much is land? It was a commitment that was made taking into consideration every bit of what you talk about in your statement, all the infrastructure, all the troop commitments and everything else.

So, the heads of government go into a conference and agree on 3-percent real growth and now you undercut it. You say it is just one measure. That is typical, it is typical of the rationalization which has been made about the lack of NATO contribution to their defense as well as to ours; and the same thing is true with the Japanese—only worse.

Do you agree with this statement:

The failure of our allies to collectively achieve at least the 3-percent judged necessary to keep the East-West balance from tipping further against NATO could be seen by Moscow as a weakening of our collective resolve?

Mr. CARLUCCI. Would you please repeat the question?

Senator LEVIN. Do you agree that "the failure of our allies collectively to achieve at least the 3 percent judged necessary to keep the East-West balance from tipping further against NATO could be seen by Moscow as a weakening of our collective resolve?"

Mr. CARLUCCI. First let me point out that the allies, even by the figures you read, are coming close collectively to the 3 percent. Some are above it and some are below it.

What you are talking about is an average figure. Certainly we do agree that the alliance needs to make every effort to achieve its goals in order to convince Moscow that we are resolute in our purpose of deterring aggression.

Senator LEVIN. Do you agree with the statement though?

Mr. CARLUCCI. I am not sure I would use the exact language, but I agree with the general thrust.

Senator LEVIN. Do you agree with the statement: "The failure of many of our allies to achieve the 3-percent goal will affect modernization equipment plans and result in widespread shortfalls in meeting NATO force goals?"

Mr. CARLUCCI. Would you repeat it again?

Senator LEVIN. Do you agree that "failure of many of our allies to achieve the 3-percent goal will affect equipment modernization plans, delay implementation of long-term defense programs and result in widespread shortfalls in meeting NATO force goals?"

Mr. CARLUCCI. Yes.

Senator LEVIN. You do agree "critical deficiencies and shortfalls exist and are judged less than satisfactory in at least 60 percent of the measures identified in the program area?" All these statements come from DoD's own report on burden sharing.

Mr. CARLUCCI. Yes.

Senator LEVIN. That is the threat to our own security, the failure to meet the 3 percent goal. I think what we ought to understand is that that 3 percent is not some measure which ignored all the other history and ignored all the infrastructure. That was a 3-percent commitment and this administration I think has let our allies off the hook.

BUY AMERICAN ACT

Finally, I was really intrigued, Secretary Eagleburger, I believe it was you who talked about Buy American. We have a Buy American provision that says on anything exceeding $10,000 we are going to Buy American clothing, cotton, silk, synthetic fabrics, wool, and so forth.

Do you have any objection to those provisions in the Buy American Act?

Mr. EAGLEBURGER. What I said was that what we had received was complaints from a number of our NATO allies, particularly from the Federal Republic of Germany, which focused particularly on the administrative vehicle question.

Senator LEVIN. You are not seeking changes in these other provisions?

Mr. CARLUCCI. We are not, no.

Senator LEVIN. If I can conclude with a statement, my time is up.

Chairman TOWER. On the matter of the administrative vehicles I still think we have to prepare a figure for fiscal 1980 on total sales versus U.S. purchases for which the ratio is 9.4 to 1 in our favor. I think I can assure my colleagues we do jeopardize this situation

which is very favorable to us when we put in these restrictive amendments on our appropriations bill.

We would certainly be foolish if we lost billions of dollars in business in an effort to force our military to buy a few million dollars worth of stuff from domestic producers.

I think it would be useful if we could have a figure that will give us some indication of what percentage of individual national defense budgets of NATO countries is spent in the United States versus the percentage of our defense budget that might be spent with them in terms of military purchases.

So, if you could provide that for the record, Mr. Secretary?

Mr. CARLUCCI. I will be delighted to, Mr. Chairman.

Might I also point out that there is no guarantee under that particular provision that American automobile manufacturers would be the beneficiaries. It is quite conceivable that the competitive bidding practices would end up with Japanese vehicles, for example, coming in with the lowest bid.

[The information follows:]

NATO COUNTRIES EXPENDITURES IN THE UNITED STATES

In 1980, our major NATO trading partners (including Canada and France) purchased $2169.4 million of foreign military sales and commercial exports of selected munitions. These same countries sold a total of $354.7 million to the United States. This is a ratio of 6.1 to 1 in our favor. If Canada and France are excluded, the comparable figures would be $1807.3 million purchases by our allies, $192.8 million purchases by the United States for a ratio of 9.4 to 1 in our favor. The industrialized NATO countries in Europe spend 1.8 percent of their total defense expenditures in the United States while the United States spent 0.1 percent in the same nations. The data for our major NATO trading partners follows:

BALANCE OF TRADE IN DEFENSE EQUIPMENT WITH MAJOR NATO TRADING PARTNERS

[Dollar amounts in millions]

Country	Fiscal year					Total, 1976–80
	1976–TQ	1977	1978	1979	1980	
Belgium:						
U.S. sales	$17.5	$13.9	$52.9	$172.3	$223.4	$481.7
U.S. purchases	$6.9	$2.1	$4.1	$7.6	$16.8	$37.4
Ratio	2.5:1	7.6:1	13:1	23:1	13:1	13:1
Denmark:						
U.S. sales	$18.9	$22.7	$19.6	$17.2	$179.3	$257.7
U.S. purchases	$8.6	$3.6	$6.2	$7.9	$23.6	$49.9
Ratio	2.2:1	6.3:1	3.2:1	2.2:1	7.6:1	5.2:1
France:						
U.S. sales	$40.7	$36.1	$27.0	$24.7	$37.7	$166.2
U.S. purchases	$5.7	$1.3	$2.2	$4.0	$2.5	$15.7
Ratio	7.1:1	28:1	12:1	6.2:1	15:1	11:1
Federal Republic of Germany:						
U.S. sales	$371.0	$300.2	$235.3	$255.2	$378.4	$1,540.1
U.S. purchases	$29.2	$7.5	$2.7	$13.3	$18.1	$70.8
Ratio	13:1	40:1	87:1	19:1	21:1	22:1
Italy:						
U.S. sales	$137.3	$131.1	$125.4	$84.3	$108.7	$586.8
U.S. purchases	$19.9	$4.0	$5.0	$.5	$16.1	$45.5
Ratio	6.9:1	33:1	25:1	169:1	6.8:1	13:1
Netherlands:						
U.S. sales	$37.6	$104.7	$76.1	$117.8	$333.4	$669.6
U.S. purchases	$5.1	$2.9	$2.0	$9.7	$26.8	$46.5
Ratio	7.4:1	36:1	38:1	12:1	12:1	14:1

BALANCE OF TRADE IN DEFENSE EQUIPMENT WITH MAJOR NATO TRADING PARTNERS—Continued

[Dollar amounts in millions]

Country	Fiscal year					Total, 1976–80
	1976–TT	1977	1978	1979	1980	
Norway:						
U.S. sales	$23.8	$40.3	$42.3	$24.9	$214.2	$345.5
U.S. purchases	$7.8	$7.9	$3.6	$15.1	$40.0	$74.4
Ratio	3.1:1	5.1:1	12:1	1.6:1	5.4:1	4.6:1
United Kingdom:						
1. U.S. sales	$233.6	$137.0	$106.1	$273.7	$369.9	$1,120.3
2. U.S. purchases	$159.7	119.0	$75.3	$76.8	$51.4	$482.2
3. Ratio	1.5:1	1.2:1	1.4:1	3.6:1	7.2:1	2.3:1
Total, Europe:						
U.S. sales [1]	$880.4	$788.0	$684.4	$970.1	$1,845.0	$5,167.9
U.S. purchases [2]	$242.9	$148.3	$101.1	$134.9	$195.3	$822.5
Ratio	3.6:1	5.3:1	6.8:1	7.2:1	9.4:1	6.3:1
Canada (November 1963):						
U.S. sales	$185.3	$163.4	$160.9	$142.7	$324.4	$976.7
U.S. purchases	$167.6	$172.4	$242.1	$201.5	$159.4	$943.0
U.S. ratio	1.1:1	0.9:1	0.7:1	0.7:1	2:1	1:1

[1] U.S. sales—Selected foreign military sales deliveries reported by DSAA plus commercial exports of selected munitions list items reported by Department of State.

[2] U.S. purchases—Imports of selected items for DOD use reported by Department of Commerce.

Note: The catalog of selected items is limited to defense equipment, including components and spare parts. Transactions involving subsistance items, petroleum products, publications, training, repairs, and other services are not included in the data presented.

PERCENT OF DEFENSE BUDGET SPENT IN THE UNITED STATES BY MAJOR NATO TRADING PARTNERS

[Dollar amounts in millions]

	Purchases from United States	1980 total defense expenditures	Percent from United States	Sales to United States	Ratio of purchases to sales
Belgium	$223.4	$3,958.4	5.6	$16.8	13:1
Canada	324.4	4,702.9	6.9	159.4	2.0:1
Denmark	179.3	1,607.7	11.2	23.6	7.6:1
France	37.7	26,424.7	.1	12.5	15:1
Germany	378.4	26,692.3	1.4	18.1	21:1
Italy	108.7	9,578.5	1.1	16.1	6.8:1
Netherlands	333.4	5,269.3	6.3	26.8	12:1
Norway	214.2	1,668.6	12.8	40.0	5.4:1
United Kingdom	369.9	26,758.7	1.4	51.4	7.2:1
Total, excluding Canada	1,845.0	101,958.2	1.8	195.3	9.5:1
Total, excluding France and Canada	1,807.3	75,533.5	2.4	192.8	9.4:1
Total	2,169.4	106,661.1	2.0	354.7	6.1:1
United States	[1] 2,169.4	143,981.0	[1] .2	354.7	

[1] U.S. purchases in above listed countries.

Sources: (1) U.S. sales—Selected foreign military sales deliveries reported by DSAA plus commercial exports of selected munitions list items reported by Department of State; (2) U.S. purchases—Imports of selected items for DOD use reported by Department of Commerce.

Note: The catalog of selected items is limited to defense equipment, including components and spare parts. Transactions involving subsistance items, petroleum products, publications, training, repairs, and other services are not included in the data presented.

ADMINISTRATIVE VEHICLES AMENDMENT

Senator LEVIN. Mr. Chairman, could I have one moment on that since you have raised it?

I think it is a critical point that the Secretary now makes. This restriction in last year's appropriation act did not say to buy only American administrative use vehicles.

It just said let American manufacturers bid. We have a flat-out prohibition on the purchase of anything other than American clothing, cotton, silk, synthetics, wool. Flat-out prohibition. The administration is not seeking to change that. All we added last year was a provision letting our manufacturers bid, that is all, to just let them bid.

If the Germans come in as low bidders, fine. My gosh, that is absolutely modest compared to what you are now trying to change in this bill. We have 300,000 unemployed autoworkers. We are telling them they cannot even bid on administrative use vehicles.

We are not even trying to require they be bought. We want something more modest than wool and all these other requirements. Yet that provision is pointed to as an example of where we are damaging our relationships with Germany.

I think it is a very unfair assessment of what was done here. It is a requirement to let people bid, our own manufacturers bid. The Secretary is correct, it could result in other vehicles being bought. We understand that. All we are asking for again is to let American manufacturers bid on this vehicle.

I don't know why anyone should object to that.

Chairman TOWER. Let me ask a question.

Does this administrative vehicles amendment abrogate any existing agreement that we might have with any of our NATO allies?

Mr. EAGLEBURGER. Not that I am aware of, Mr. Chairman, although as I indicated, when the Federal Republic of Germany joined in the NATO AWACS program it was at least, as I understand it, in part because they expected under the earlier legislation they would be beneficiaries of the purchase of some administrative vehicles from the Federal Republic by the United States.

I do not, myself, think it is an abrogation of any agreement.

Chairman TOWER. I think it would be fair to say, would it not, that to insist that our allies raise their defense contributions, given the ratio of their purchase of U.S. equipment versus U.S. purchases of their equipment, that we are asking them to spend more money with us at the least favorable exchange rates ever?

Mr. CARLUCCI. That is correct at a time when the overall ratio is 6 to 1 in our favor.

Chairman TOWER. Yes; I thank you very much for coming today.

Senator BYRD. Mr. Chairman.

Chairman TOWER. Senator Byrd.

Senator BYRD. I have just one question.

Secretary Eagleburger, in your statement you say that you want to present some general thoughts on the question of burden sharing. Then you say this:

> There is no question that a gap exists today between the rate of growth of the U.S. defense effort and that of the allies. But one very basic reason for that is that we are now running hard to make up for nearly a generation of neglect in our military programs. The allies, in contrast, have turned in a remarkably steady performance.

My question to you is: Has the United States had a generation of neglect of NATO?

Mr. EAGLEBURGER. Of NATO, as an alliance obviously not.

What I was talking about here is a point that has been mentioned several times since, that in the decade of the seventies by

and large the NATO allies did turn in a better performance in terms of percentage increase in defense spending than did the United States.

We were in a trough and are coming back up again now.

Senator BYRD. You were giving general thoughts on the question of burden sharing?

Mr. EAGLEBURGER. Yes; but in the statement what I was talking about specifically was U.S. expenditures on defense as against NATO allies' expenditures on defense. That was the point.

NATO NEGLECT

Senator BYRD. The whole meeting today has been about NATO. Now you say there has been a generation of neglect in our military programs. Then you say the allies in contrast have turned in a remarkably steady performance.

My question to you again is: Has the United States had a generation of neglect of NATO?

Mr. EAGLEBURGER. Not a generation of neglect of NATO, no, sir, as a specific answer to your question.

Senator BYRD. As a matter of fact, the United States has been the strength and the backbone of NATO, has it not?

Mr. EAGLEBURGER. That is correct.

Senator BYRD. I think it is misleading to suggest otherwise in this written statement that you have on page 2.

Mr. EAGLEBURGER. Senator, with respect to the point I was trying to make, obviously not terribly eloquently, is the point we have tried to make here several times in response to some of the questions that other Senators have raised. It is true that today the United States is doing much better in terms of the amount of money spent on defense as a percentage of GNP. But we must not forget when we talk about the differences that exist now, a gap that exists today in our favor, that for almost a decade we were in fact faced with the opposite conclusion.

Senator BYRD. But that gap does not exist, by your own testimony, does not exist insofar as NATO is concerned, insofar as the U.S. contribution to NATO is concerned. That is what we are talking about.

Mr. EAGLEBURGER. My answer to your question was that the United States has not neglected NATO. NATO has been the keystone of our foreign policy. In fact, in regard to the defense expenditures our allies did better through most of the decade of the seventies than we did.

Senator BYRD. In regard to our defense expenditures for NATO there was no neglect on the part of the United States and the United States did everything that was necessary, did it not, through those years in regard to NATO?

Mr. EAGLEBURGER. Everything that was necessary I would question, sir, but for NATO, yes.

Senator BYRD. How would you phrase it, if you don't like my phraseology?

Mr. EAGLEBURGER. Senator, I have already stated that during the course of the decade of the seventies our allies performed steadily and well, while during the course of the decade of the seventies in

regard to U.S. defense expenditures declined in real terms. Now we are on the way up.

Chairman TOWER. We are talking about defense budgets.

Senator BYRD. I am sorting it out, Mr. Chairman. I want to get to NATO. What we are talking about is NATO.

Secretary Eagleburger has stated that there has been no neglect by the United States of NATO. Am I correct in that statement?

Mr. EAGLEBURGER. Senator, that is correct and my answer, so long as you understand what I mean by no neglect of NATO, is that in the total complex of our relationships with NATO, politically as well as militarily, yes, we have not neglected NATO.

With regard to specific issues of defense expenditures, I think the point I continue to try to make is that the Western Europeans have done rather well over the course of the last decade.

U.S. DEFENSE POSTURE

Senator BYRD. You have implied the United States has not. The United States insofar as NATO is concerned has done its full part, has it not, in regard to military expenditures for NATO?

Mr. EAGLEBURGER. I guess the answer I have to give to that, Senator, is a qualified yes. I agree in a qualified sense as long as you understand that the defense posture of the United States as a whole is also a part of the NATO defense, whether we are talking about something earmarked for NATO or not.

Senator BYRD. I want to put the same question to Secretary Carlucci.

In your judgment has the United States through the years done its full share in regard to military expenditures for NATO?

Mr. CARLUCCI. We have met the formal requirements, but I have to confess to you, Senator, that when we arrived at the Defense Department we were greatly troubled by the state of readiness and sustainability of our Armed Forces, the lack of rapid sealift, the lack of strategic airlift, all of which carry implications for our wartime commitment to NATO.

It is a question of whether we have the capability to carry out that commitment while, of course, in terms of the NATO force, we are making our contribution to infrastructure and all the NATO programs.

Senator BYRD. Are you suggesting that the United States has slighted NATO, that the United States has not done its full part as partner in NATO?

Mr. EAGLEBURGER. No, sir. I am suggesting that the United States allowed its security posture to deteriorate to the point where we were endangering a number of our commitments around the world.

Senator BYRD. You feel that the United States has endangered NATO?

Mr. EAGLEBURGER. I said endangered our commitments. I think we had allowed ourselves to degrade to the point where our commitments might not have been able to be fulfilled, yes, sir.

Senator BYRD. Mr. Chairman, I think this has been a good hearing today. I think one thing it has brought out is that there is a great deal of deep concern apparently on the part of many Mem-

bers of the Congress, Senator Cohen, Senator Humphrey, Senator Levin, in regard to NATO.

I think that this hearing has emphasized that there is more concern than this Senator at least had been aware of. So I congratulate the chairman for calling this hearing.

Chairman TOWER. I would answer that we have been neglecting NATO by neglecting our own security interests, which we did during the decade of the seventies. We failed to modernize our ground forces which not only jeopardizes the security of Western Europe, but jeopardizes our own security.

In fact, we in the Congress must take part of the rap for this because we underfunded defense steadily throughout the decade of the seventies. To that extent we did fail NATO as we failed ourselves.

We must understand that we are an integral part of NATO and it is a mutual security arrangement. Anything that we do that impacts adversely on the security of others impacts adversely on our own security. That is why I hope we will sustain the increase recommended by the administration not just to contribute more to the defense of the blue-eyed European, but to our own defense and our own security, recognizing that it is incumbent on us when confronted by a powerful adversary to maintain our defense perimeter as far from our own shores as possible and as close to the adversary's shores as possible.

We are not in Western Europe for altruistic reasons. We have all suffered from a decade of neglect on the part of the United States. We are only now coming around to the modernization of our ground forces. The Western Europeans were beginning to do that back in the seventies.

I don't think we can safely pat ourselves on the back and say we have really lived up to our commitment when in fact we have not even lived up to our commitments to ourselves.

I want to thank you gentlemen for coming today. I want to emphasize that I am not satisfied, myself, with everything our NATO allies are doing. I believe they could do more and I hope they will do more. I will continue to urge them to do more.

I think we must understand all aspects of this problem. That is why this hearing was called today.

[Questions submitted for the hearing record follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN TOWER

ALLIED VIEW OF THE THREAT

Senator TOWER. It is obvious that there is a difference of opinion between the United States and other NATO nations as to the seriousness of the threat posed by the Warsaw Pact. Secretary Carlucci's statement declares: "The military threat to the Alliance, we believe, is greater today than at any point in its history."

In Secretary Carlucci's statement, the concluding sentence states: "In the final analysis, however, what a nation chooses to spend on defense can only be—in terms of its own self-interests—a function of the threat it perceives and not as a consequence of what it perceives as a fair burden relative to its allies."

Given the fact, how do we convince our allies of the seriousness of the threat?

Answer. We deal with our NATO allies in many ways in discussing the threat. We meet with them bilaterally at both political and military levels, in Washington and in capitals. We participate in NATO multilateral discussion of the military threat in producing NATO's annual basic military intelligence documents. We participate with our allies in NATO committee discussion of the economic and political

aspects of the threat. We consult on a multilateral basis in the North Atlantic Council and the Defense Planning Committee not only on the threat but on measures to deal with it. Members of Congress participate in multilateral meetings such as the North Atlantic Assembly, whose prime function is to review the threat and the measures appropriate to meet it, and they visit allied parliamentary groups and receive visits from them, often with a primary emphasis on the threat and appropriate response measures. Continued action along these lines serves to establish and reinforce a common appreciation of the seriousness of the threat.

SPECIALTY METALS

Senator TOWER. Section 723 of the fiscal year 1982 DOD Appropriations Act forbids DOD from buying non-U.S. origin specialty metals unless the Secretary of a Military Department determines that specialty metals of a satisfactory quality and sufficient quantity cannot be procured as and when needed at U.S. market prices.

What will be the impact of section 723 on the procurement by the United States of various weapons systems?

Answer. From a programmatic standpoint, the restriction if continued will cause schedule delays and increases in costs to such programs as Rapier, KC-135 re-enginging, and AV8B, among others. Changing the basic raw material source for critical weapon, aircraft or engine components, will require re-qualification of the component as well as the end item. It would make the job of our defense industries meeting their current offset commitment infinitely more difficult on such sales as the F-18 and the P-3. In another example, Germany has made a substantial investment with us on the Multiple Launch Rocket System (MLRS). The specialty metals prohibition could prevent the Germans from furnishing the very components they helped develop and could also be a major deterrent for establishing them as a second source for other components.

In the short time since the passage of the Appropriation Act restrictions, we have already been forced to reject low competitive offers from NATO, Switzerland, Australian, and Israeli sources, received at both the prime and subcontract levels, for various items and components containing small amounts of specialty metals. Since fiscal year 1982 procurement funds are available for obligation during more than one year, the problem in the offset and Memorandum of Understanding (MOU) area would linger unless the restriction is removed by supplemental action to the fiscal year 1982 Appropriation bill.

Senator TOWER. What are the implications of section 723 for allied defense cooperation?

Answer. Section 723 unfortunately gives a clear perception to our Allies that we are all for standardization and interoperability except where it might have local economic consequences, regardless how minor these may be.

The restrictions reinstated by Section 723 puts the Ministries of Defense of our Allies in an untenable position when they attempt to justify to their parliaments the acquisition of U.S.-developed defense equipment.

Europe now views our efforts at Alliance cooperation as nothing more than an effort to sell U.S. arms by reimposing barriers to cooperation.

Senator TOWER. Does Section 723 require the United States to violate any international agreements to which it is a party?

Answer. Section 723 violates the spirit and intent of Memoranda of Understanding (MOUs) we have negotiated with each member of NATO, the Memorandum of Agreement (MOA) with Israel, as well as the offset agreements with Switzerland and Australia. While Section 723 does not violate formal international agreements, it does make our MOUs, MOAs, and offset agreements almost inoperative.

ALLIED SHARE OF DEFENSE BURDEN

Senator TOWER. In the past several years, as the United States has undertaken a serious effort to revitalize American military capabilities, increasing attention in this country has turned to the issue of whether our allies—especially those in NATO Europe and Japan—are carrying their fair share of the burdens of common defense.

Is the United States shouldering a disproportionate share of the defense burdens of the Western World?

Answer. The non-U.S. NATO allies in aggregate appear to be shouldering roughly their share of the NATO total defense effort. Individually, however, there are wide differences with some doing more than seems equitable, others doing far less. This rough balance could change if the U.S. continues to increase its defense efforts at a

more rapid rate than that of the allies. The point is all must do more and continue to do so.

LONG-RANGE TREND IN BURDENSHARING

Senator TOWER. Over the long term, how has the relative burden of defending Western Europe shifted between the United States and her NATO allies?

Answer. An examination of long range historical trends for a number of major burdensharing measures, (e.g., total defense spending, defense spending as a share of GDP, total military and civilian manpower), indicates non-U.S. NATO allies in the aggregate steadily took on more of the common burden during the 1970's. These trends hold both for the current situation compared with the early 1970's as well as the current situation compared with the early 1960's, i.e., prior to the U.S. build-up in Southeast Asia. For example, real U.S. defense spending during 1971–80 declined on average a little more than 1 percent per year, compared to an increase of slightly over 2 percent per year for the non-U.S. NATO allies. The burdensharing pendulum now appears to be swinging in the opposite direction. While the comparable averages for the last half of the 1970's (i.e., 1976–80), still show an annual 1.4 percent increase for the United States and 1.8 percent for the NATO allies; U.S. real increases for 1981 and 1982 are estimated on the order of 6 percent per year compared with non-U.S. NATO increases of somewhat less than 3 percent.

TREND IN REAL DEFENSE EXPENDITURES

Senator TOWER. Since 1970, what have the overall trends been in terms of real resources committed to defense spending by the United States and other NATO member states?

Answer. In real terms and using 1980 prices, total defense spending (using NATO definition) for the United States dropped from $156 billion in 1970 to $138 billion in 1980. For our allies, using the same 1980 baseline for prices and exchange rates, defense spending increased from $94 billion in 1970 to $113 billion in 1980.

VTX AIRCRAFT

Senator TOWER. VTX is the U.S. Navy program to replace the jet trainer currently used in strike flight training. I understand that the McDonnell Douglas/British Aerospace system based on the British Hawk was the system selected for potential development.

Given that VTX is a joint U.S./British endeavor, how important is the program to allied defense cooperation?

Answer. With selection of the Hawk trainer aircraft for the U.S. Navy's VTX program on 19 Nov 81, the United States has confirmed to both the United Kingdom and our allies that we will adopt an off shore system when it wins competitively on a cost-effective basis. We remain committed to allied defense armaments cooperation—therefore, it is an extremely important program as expressed by the highest levels of both the United States and United Kingdom Governments.

Senator TOWER. What would be the effect on allied defense cooperation if this program were canceled?

Answer. Our European allies consider that an agreement for bilateral or multilateral arms cooperation entails a political obligation beyond a purely national program. For the U.S. Government to withdraw from a collaborative program gives it a reputation as an undependable Ally, lessens its credibility as a leader of arms cooperation, and does great damage to the movement for greater NATO rationalization, standardization and interoperability.

Senator TOWER. Would the United States be in violation of any international agreement if it were to cancel the VTXTS program?

Answer. No; however, the United States has been encouraging its allies to increase the efficiency with which they transform defense resources into defense outputs. This necessitates that each NATO country look beyond its political borders and consider weapons already developed by other alliance countries before initiating what might otherwise become a duplicative development program.

Our NATO allies have purchased or coproduced considerable amounts of U.S. military equipment based on an objective investigation of program alternatives. While the United States has encouraged this approach, the record shows U.S. actions to have been biased toward new unilateral development programs. Thus, the flow, as measured in dollars, of military equipment over the two-way street reflects the United States delivering to the European allies multiples of what the allies deliver to the United States.

Against this backdrop, the United States selected the VTXTS from among a field of six competitors, which included foreign and domestic aircraft. Selection of a proposal based on the United Kingdom Hawk signaled that perhaps the United States is finally prepared to follow the line of reason which the allies have been expected to follow when evaluating U.S. weapon systems. Cancellation of the VTXTS at this stage will be perceived in Europe as a signal that the proponents of "U.S. development at any cost" have won out again over the proponents of acquiring the most cost-effective weapon system without regard to its origin.

SPECIAL DEFENSE ACQUISITION FUND

Senator TOWER. Last year, the Congress provided authority to the Secretary of Defense to establish a Special Defense Acquisition Fund. The purpose of the fund is to finance the acquisition of defense articles and services in anticipation of their transfer to eligible foreign countries and international organizations. What is the current status of this fund?

Answer. The Special Defense Acquisition Fund (SDAF) account has been established with the Treasury. As authorized by the Congress receipts from asset use charges and nonrecurring research, development, and production costs imposed on certain foreign sales of military equipment are now being deposited to the SDAF account. However, receipts from sales of defense articles from DOD stocks which are not intended to be replaced, although authorized by the fiscal year 1982 foreign assistance legislation, are not yet being deposited in the SDAF account. This is due to a provision of the fiscal year 1982 DOD Appropriation Act which requires these receipts to be deposited in the Treasury as miscellaneous receipts. The fiscal year 1982 Defense Supplemental request includes a proposed language change to correct this anomaly.

Currently the DOD has no authority to begin procurement of defense articles in anticipation of foreign requirements. Although the fiscal year 1982 foreign assistance legislation authorized the establishment and capitalization of the SDAF, it also required that SDAF funds "shall be available for obligation in any fiscal year only to such extent or in such amounts as are provided in advance in Appropriation Acts." Since this requirement for obligation authority has not yet been met, the fiscal year 1982 Defense Supplemental request proposes an additional change to the fiscal year 1982 DOD Appropriation Act in order to provide obligation authority in fiscal year 1982 equal to the amount of the SDAF up to a limit of $300 million.

Language proposed for the fiscal year 1983 DOD Appropriation Act also includes changes which would correct the two fiscal year 1982 problems addressed above. The proposed fiscal year 1983 DOD Authorization Act includes a provision to increase the SDAF capitalization authority from the currently authorized $600 million in fiscal year 1983 to a level of $900 million in fiscal year 1984.

Procedures for the operation of the SDAF as well as the required accounting system have been developed and are currently undergoing staff review within DOD. These will be completed in time to initiate procurement action following approval of obligation authority by the Congress.

Senator TOWER. Prior to the procurement of any defense articles with the monies from the Special Defense Acquisition Fund, does the Department of Defense plan to provide for the formal review of the Senate Armed Services Committee the systems planned for acquisition?

Answer. Attached is a copy of the information on the Special Defense Acquisition Fund (SDAF) which is included in the fiscal year 1983 Congressional Presentation Document for Security Assistance Programs. This document includes a list of the types of items which are currently being considered for procurement with SDAF funds.

Action is now ongoing to develop a fiscal year 1982 SDAF procurement plan for specific types and numbers of defense items. Staffing of this plan has been completed within DOD and consultation as required by section 51(a), Arms Export Control Act, is now in progress with the Department of State on the final formulation of the plan. Following approval of the plan by the Secretary of Defense, it will be submitted to the Armed Services Committees for review as provided by section 53(b), Arms Export Control Act.

SPECIAL DEFENSE ACQUISITION FUND

(SECTION 53(a), AECA REPORT)

Section 108(a) of the International Security and Development Cooperation Act of 1981 added a chapter (Chapter 5) to the Arms Export Control Act authorizing the

Secretary of Defense, in consultation with the Secretary of State, to establish a Special Defense Acquisition Fund (SDAF) to be used as a revolving fund separate from other accounts, under the control of the Department of Defense. The 1981 Act authorized capitalization levels of $300 million in fiscal year 1982 and $600 million in fiscal year 1983, on a cumulative basis. We plan to request a final increase in capitalization authority to $900 million in fiscal year 1984. The purpose of the SDAF is to finance the acquisition of defense articles and defense services in anticipation of their transfer pursuant to the Arms Export Control Act, the Foreign Assistance Act of 1961, as amended, or as otherwise authorized by law, to eligible foreign countries and international organizations. The objectives to be gained with the SDAF are to:

Enhance the President's ability to react to foreign policy requirements involving security assistance by providing the capability to fulfill urgent needs of allied and friendly governments for military equipment while minimizing the adverse impact on the combat readiness of U.S. forces;

Provide an effective means to assist in smoothing rates of production, thus increasing efficiency and reducing costs of both foreign and Defense Department weapons procurements;

Reduce procurement lead times for delivery of weapon systems to foreign governments or, where items must be taken from U.S. forces, for payback to U.S. forces.

The law authorizes capitalization—through time—by receipts from (1) foreign military sales (FMS) from DOD stocks of defense articles not intended to be replaced; (2) asset use charges (including contractor rental payments for U.S. Government-owned plant and production equipment) and charges for the proportionate recoupment of nonrecurring research, development, and production costs; and (3) FMS sales or reimbursements due to grant aid transfers of defense articles and services acquired with SDAF funds.

Two additional actions are required in order to make the SDAF fully operational. The 1982 Appropriations Act must be amended so that receipts from sales from stock of defense articles not intended to be replaced can be credited to the SDAF. Secondly, authority to obligate funds credited to the SDAF must be provided annually, in advance, in an appropriations act. The fiscal year 1982 DOD supplemental appropriations request includes proposed changes to the fiscal year 1982 DOD Appropriations Act which would correct these two problems.

The day-to-day management and operation of the SDAF will be under the direction and supervision of the Director, Defense Security Assistance Agency. There will be close synchronization of SDAF procurement planning with the budget processes of the military departments. The annual SDAF procurement plan will be developed by DSAA in concert with the military departments and the Joint Chiefs of Staff. The procurement plan recommendations by the military departments and others will be analysed and a final plan developed by the Defense Department in consultation with the Department of State.

Following the decision to procure an item using SDAF financing, the Defense Department (DSAA) will authorize the military department concerned to enter into a procurement contract. Items will either be sold in accordance with the provisions of the Arms Export Control Act or granted under one of the authorities of the Foreign Assistance Act. Normally, under the SDAF, defense items will come off the production line and be delivered to foreign military sales customers or grant aid recipients identified earlier in accordance with U.S. national security interests. In many, if not all instances, the actual transfer agreement will be completed with the foreign government at some period prior to the actual delivery of the item. Thus, the foreign government will, in many or most cases, be receiving the item in less than normal procurement lead time rather than getting an immediate delivery. In another instance, an SDAF procurement might be used to pay back a diversion from production for a military department or a withdrawal from DOD stocks.

If an item should be ready for delivery without an already identified foreign buyer, the law permits the appropriate military department to use the item on a temporary basis against its approved acquisition objectives, while paying the operation and maintenance costs associated with that use. If a foreign sale of the item is approved later, the military department will pay the cost of restoring or replacing the item. (In a crisis situation, should the Secretary of Defense determine that the needs of U.S. forces are more urgent than those of the anticipated foreign recipients, he could decide to transfer the items to the military departments, on a payback basis.)

Based on the preliminary planning completed up to this time, the following items are candidates for procurement in fiscal year 1982, fiscal year 1983, and fiscal year 1984: M60A3 tanks, associated radios, sights, and ammunition; 155mm self-propelled and towed howitzers, associated ammunition, trucks, and heavy machine guns; im-

proved-TOW anti-tank guided missiles and ancillary equipment Sidewinder missiles (AIM-9-P-3); tactical radios (AN/PRC-77 and AN/VRC-12); intermediate export fighter aircraft (selection of the particular aircraft is under review); basic surface-to-air missiles or gun-systems; and air-to-ground munitions.

While these are candidates at the present time, we would change this list as circumstances dictate.

ADMINISTRATIVE USE VEHICLES

Senator TOWER. Section 783 of the fiscal year 1982 DOD Appropriations Act prohibits DOD from purchasing administrative motor vehicles that are manufactured outside the United States or Canada except through competitive bidding and with no differential in favor of foreign manufacturers.

What are the implications of this provision for allied defense cooperation?

Answer. It would virtually destroy one of our major cost-effective standardization and interoperability programs with our NATO Allies. The Bundestag Defense Committee, in fact, linked the German participation in the NATO AWACS program ($560 million in 1977) to the procurement of Administrative Use Vehicles. The European Administrative Use Vehicles (AUVs) program was initiated with our Allies in direct response to the objectives of the "Culver-Nunn" Amendment contained in the 1977 DOD Authorization Act.

In NATO political circles, European observers recall the "Culver-Nunn" Amendment as presenting a major signal from the U.S. Congress that arms cooperation was for real. They read an equally strong signal now (Section 783) in reverse. In short, it represents a strong impediment to future arms cooperation.

Senator TOWER. Inasmuch as the balance of interallied defense trade is heavily in favor of the United States, can you explain to the Committee if this provision is sensible from an economic point of view?

Answer. It does not make sense economically, politically, or strategically. The practical result is that section 783 would end up benefiting other foreign (non-NATO) automobile manufacturers (as opposed to the U.S. automotive industry).

The net result of section 783 could be that our forces in Germany, Italy, and the United Kingdom would end up with a diversified mix of vehicles that would be a nightmare to support logistically and require an increase of invested capital for large stocks of spare parts and additional vehicles. Furthermore, it would probably require in-house maintenance capability representing a drain on additional manpower from the combat arms of U.S. forces.

Senator TOWER. Does section 783 require the United States to violate any international agreements to which it is a party?

Answer. While section 783 does not violate any formally negotiated international agreements, it does violate the spirit and intent of our Memoranda of Understanding (MOU's) with Germany, the United Kingdom, and Italy.

Senator TOWER. What countries are affected by section 783?

Answer. The countries directly affected by section 783 are the Federal Republic of Germany (FRG), the United Kingdom, and Italy.

The estimated potential for German purchases of new defense projects from U.S. firms is from $565 million to $2.5 billion during the next ten years. This represents 13,400 to 59,250 new jobs for U.S. workers.

The sale of Trident D-5 to the United Kingdom could amount to $3.8 billion and equates to approximately 91,200 jobs.

The defense trade balance with Italy is about 7-1 in our favor.

POLITICAL COHESIVENESS OF NATO

Senator TOWER. Many defense analysts have concluded that there never has been a time in the history of the North Atlantic Alliance when the U.S. and her European partners have been so divided on military strategy, policies and programs. Could you please give us your views as to the political cohesiveness of the North Atlantic Alliance?

Mr. EAGLEBURGER. Comments of this sort, about divisions within NATO, have cropped up frequently throughout the history of the alliance. There are a number of difficult issues presently being discussed within the Alliance—but they are no more inherently divisive, nor any more threatening to alliance cohesiveness, than those of earlier periods. The unity of the North Atlantic Alliance is not in danger.

NATO is an alliance of sovereign states, in which the process of reaching agreement is not always smooth. Thus, our debates may give the public impression of disarray. The political basis of our unity, the core issues of defense of Western security and of Western values, has never been in question, and remains intact today. Alli-

ance members are responding well to the unparalleled Soviet military threat by steadily improving their conventional forces and by proceeding with INF modernization. Moreover, in response to recent events in Poland, we have agreed on a number of meaningful steps, which compare very favorably with earlier alliance reactions to crises in Hungary and Czechoslovakia.

TROOP WITHDRAWALS

Senator TOWER. At various times in the last 15 years, Members of Congress have used the threat of U.S. troop withdrawals from Western Europe as a means of forcing NATO countries to spend more for defense.

1. What impact do these troop withdrawal threats have on our allies—politically, militarily, psychologically?

Mr. EAGLEBURGER. American troops in Europe are there for our own vital national interests in the defense of Allied security. They are also essential for America's leadership of a united Western coalition. Placing that commitment in doubt by threats of troop withdrawals would run counter to our long-standing interest in Western security. It would also demoralize Western Europe and virtually exclude Allied support for U.S. efforts to meet the Soviet challenge outside of Europe.

Most of those who talk of reducing our troop presence in Europe argue that we should maintain our commitment and our presence but that we should spur our allies into action by symbolic withdrawals or by threatening withdrawals. Their approach is largely tactical, designed to produce a more equitable distribution of the burden, if not a greater overall effort.

This approach is highly unwise. At a time when we are working with allied governments to warn publics as to the magnitude of the Soviet threat, even token troop withdrawals would send a totally contradictory signal. It would be impossible to counter the argument that the European security situation cannot be all that bad if the U.S. has begun to pull out forces. We would cripple allied governments in their efforts to gain public and parliamentary support for improved defenses.

Senator TOWER. In the long run, do these threatened withdrawals help to strengthen the North Atlantic Alliance?

Mr. EAGLEBURGER. There are those who argue that by stunning the Europeans with threats of U.S. troop withdrawals, we can force them to accept more responsibility and thus more of the burden in the long run. History shows, however, that American leadership and the American commitment are the surest means to hold NATO together and maintain Allied efforts. Dividing the Alliance and pushing America out of Europe is a central aim of Soviet foreign policy. The divisiveness that would be created by threats of or actual U.S. troop withdrawals would be a major Soviet triumph and encourage them to intensify their efforts to divide the alliance.

Senator TOWER. What would be the impact on the North Atlantic Alliance of actual U.S. troop drawdowns in Western Europe?

Mr. EAGLEBURGER. First, it should be made clear that U.S. forces are stationed in Europe because it is in our national interests that they be there, not as a favor to Europeans. Unilateral withdrawals, no matter whether taken gradually or all at once, would seriously degrade NATO conventional defense capability and would weaken the concept of forward defense. It would certainly be seen by both Allies and potential adversaries as a weakening of U.S. commitments abroad and a reinstatement of a Fortress America foreign policy. It would be welcomed by the Soviet Union and play directly into their hands, splitting the U.S. from Europe. This reduced commitment on our part would be perceived as a relinquishment of world leadership. It would not stimulate increased defense commitment by our Allies; instead, the opposite effect would more likely result. U.S. abilities to exert our influence with allies on political, military and economic issues would be further limited by such actions.

SPECIAL DEFENSE ACQUISITION FUND

Senator TOWER. Last year, the Congress provided authority to the Secretary of Defense to establish a Special Defense Acquisition Fund. The purpose of the fund is to finance the acquisition of defense articles and services in anticipation of their transfer to eligible foreign countries and international organizations.

1. How important is the Special Defense Acquisition Fund to the U.S. security assistance program?

Mr. EAGLEBURGER. The establishment of the Special Defense Acquisition Fund will meet a long-standing and urgent requirement to be able to respond in a timely fashion to short lead time and emergency requirements of our friends and allies for

U.S. defense equipment and services. Without such a fund, we must either wait several years for equipment deliveries needed on an urgent basis or take the equipment from U.S. stocks and denegrate U.S. force readiness. These unacceptable alternatives can be avoided if long lead items routinely required by friends and Allies during emergencies are already in stock in anticipation of future emergency requirements. The program not only assists our Allies but also furthers U.S. security objectives.

Chairman TOWER. Thank you very much. The hearing is adjourned.

[Whereupon, at 12:50 p.m., the committee adjourned, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

FRIDAY, APRIL 16, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

AIR LIFT PROGRAMS

The hearing was held in open session, pursuant to notice, at 9:09 a.m., in room 5110, Dirksen Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Thurmond, Warner, Humphrey, Cohen, Jepsen, Jackson, Nunn, and Exon.

Also present: Senator Mattingly.

Staff present: Rhett B. Dawson, staff director and chief counsel; Francis J. Sullivan, minority staff director; James F. McGovern, general counsel; Brenda K. Hudson, assistant chief clerk; Louis W. Arny III, Michael B. Donley, Robert S. Dotson, George K. Johnson, Jr., James R. Locher III, and José E. Martinez, professional staff members; Drew A. Harker and Mark B. Robinson, research assistants; Kimberly A. Manning, Kathleen L. McGuire and Jacquie S. O'Grady, staff assistants.

Also present: Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Don Imgram, assistant to Senator Quayle; Faisal Keblawi, assistant to Senator Thurmond; Robert Nichols, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Arnold Punaro, assistant to Senator Nunn; Greg Pallas, assistant to Senator Exon; and Ted Rozeboom, assistant to Senator Levin.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The committee will come to order.

The Defense authorization request for fiscal year 1983 includes substantial funds for airlift programs. Key among these are the KC-10A Advanced Cargo/Tanker Aircraft and the C-5B Strategic Airlift Aircraft. The authorization request in fiscal year 1983 for these two programs totals more than $1.6 billion. The total acquisition cost of the 44 additional KC-10A's and the 50 C-5B's that the Department of Defense plans to procure will be more than $10 billion in fiscal year 1983 dollars.

In the Defense authorization bill sent to the Senate, the Armed Services Committee has recommended funding for the KC-10A and C-5B at the requested levels. While the committee has taken this

action, it remains concerned about various unanswered questions regarding airlift initiatives, especially the C-5B program.

There was a spirited discussion in the committee markup session over this issue and many doubts remain. The committee strongly supports the KC-10A program and believes that a multiyear procurement approach for the 44 aircraft may be appropriate.

Concerning the C-5B, evidence supports the view that the C-5B is the best, near-term airlift aircraft for military purposes. It can carry the full range of military cargo—outsize, oversize, and bulk. It also has a number of other militarily significant features.

Unfortunately, however, the C-5B is the most expensive airlift alternative. This naturally leads to the question of whether this greater military effectiveness justifies the greater cost, especially in the light of other viable airlift augmentation alternatives, such as acquiring existing or new 747 commercial wide-body aircraft.

To provide the committee with additional insights on this issue, six basic questions need to be fully addressed during today's hearing:

First, as airlift capabilities are augmented, what is the need for additional outsize lift?

Second, what are the cost differences between procuring roughly equivalent amounts of C-5B airlift and 747 airlift, the latter for both existing and new aircraft?

Third, how do equal cost alternatives of C-5B and 747 aircraft improve force deployment capabilities?

Fourth, what are the specific military advantages of a C-5B?

Fifth, does it make sense to place 747's in the Department of Defense's organic airlift inventory?

And last, what efforts should the Department of Defense undertake to insure that 747 aircraft—currently surplus to the needs of U.S. commercial carriers—remain available as U.S. assets for use in times of crisis?

On behalf of the committee, I would like to welcome the witnesses: Hon. Frank C. Carlucci III, Deputy Secretary of Defense; General Allen, Chief of Staff of the Air Force; General Vessey, Vice Chief of Staff of the Army; and General Kelley, Assistant Commandant of the Marine Corps. The committee is anxious to hear the testimony of the witnesses on these very important airlift issues.

As a side note to the membership, the committee has scheduled a hearing on May 11 to consider the nomination of General Vessey to be Chairman of the Joint Chiefs of Staff. Accordingly, it would be inappropriate during this hearing to question General Vessey on matters that will be addressed at this later hearing. Today's hearing should be focused on the immediate issue of airlift. I would feel constrained to rule out of order any questions addressed to General Vessey that bear purely on the matter of his nomination to become Chairman of the Joint Chiefs.

Secretary Carlucci, it would be most useful to hear your statement first, followed by Generals Vessey, Kelley, and Allen. Following General Allen's statement, I understand that General Burke will present a short briefing.

Secretary Carlucci must depart for the White House and be there at 11 o'clock. So I will ask that opening statements be kept as

brief as possible so that the Membership will have a chance to fully question Secretary Carlucci.

I would ask you, if you can, to summarize your statements. We will incorporate them fully into the record. We will hear from all of you before we proceed to questions.

Mr. Secretary?

Mr. CARLUCCI. Thank you, Mr. Chairman.

I will summarize my statement because I do think that it is important——

Chairman TOWER. Would you withhold? Senator Jackson wants to make an opening statement.

Senator JACKSON. Mr. Chairman, I thank you for suggesting that the witnesses summarize their statements because we have a number of questions that we want to ask.

I want to say at the outset the Chair will recall that I submitted 80 questions 4 weeks ago. We still have not received the answers. We have part of them. Some of them arrived after I went home last night.

Mr. Secretary, I just want to say that if the Pentagon cannot answer 80 questions in 4 weeks how do you expect to direct [our] divisions into RDF missions in 4 weeks? Now you know I have been around here a little while and I am appalled by the failure to answer these questions.

Committee rules also provide, Mr. Chairman, that the witnesses' statements are to be here 24 hours in advance. We received a copy of a draft yesterday. I want to level with you. I am beginning to wonder just what the good intentions are here when I know that there have been answers sent up to the committee, and some of them self-serving, in a matter of 3 or 4 days, but we still don't have the answers to the 80 questions. That is what this hearing is all about, Mr. Chairman.

Over the last several years, there have been numerous studies about airlift requirements. In 1980, the Congress became frustrated over the lack of justification by detailed analysis of what the military mobility requirements would be by 1986, and what combination of airlift, sealift, and pre-positioning would be necessary to meet those requirements with the most cost-effective approach.

The congressionally mandated mobility study (CMMS) was intended to be, and was submitted by this administration with its affirmation as, a definitive analysis of the military requirements to achieve a rapid deployment of forces into a theater prior to the initiation of hostilities with the clear intent of dissuading an aggressor nation. Thus, we have the requirements for delivery of outsized equipment for the four representative scenarios that were provided in the CMMS.

What we really have is a management problem to make sure that the airlift capabilities for hauling outsized equipment are effectively managed. By utilizing outsize-capable aircraft to haul primarily outsized equipment, the number of outsize-capable airplanes like the C–5 for meeting the requirements in various scenarios is substantially reduced.

A recent analysis has shown that utilization of the existing fleet of 77 C–5's for hauling primarily outsized equipment will permit

RDF requirements for delivery of outsized equipment to the front to be met.

The CMMS overstated the additional amount of outsized aircraft required because its modeling technique did not perform calculations based upon utilization of outsize-capable aircraft to haul primarily outsized equipment. If the C–5's are used primarily for outsized equipment, the real shortfall in the near term shifts to additional airlift capability to haul oversized and bulk materials which constitute 73 percent to 86 percent of the airlift requirements, depending on the scenario.

Mr. Chairman, I am convinced that the enormous budget deficits facing us in the next 2 or 3 fiscal years will necessarily require cuts in the rate of growth in the budget for the Department of Defense. The crucial decisions must give us a dollar's worth of military capability for a dollar spent.

The decision to buy additional C–5's does not meet this test. We can obtain an earlier readiness, at a savings of several billion dollars, with planes that are more capable than the C–5 in every way but the size of the doors.

Instead of restarting the production line for C–5's, we should authorize the purchase of commercial wide-body aircraft to provide the additional airlift needed to haul oversized and bulk equipment with first priority on the purchase of used aircraft currently available from our domestic airlines. These aircraft could be assigned to the Military Airlift Command or to the Air National Guard and Air Reserve units, whichever the military deems best.

We should also continue the previously planned research and development program in fiscal year 1983 on a new airplane which can meet the intratheater tactical airlift requirement for outsized equipment. The Congress can review this program next year with regard to the pace and timing for the introduction of this new aircraft.

Thank you, Mr. Chairman.

Senator NUNN. Mr. Chairman, may I make a brief statement?

Chairman TOWER. Yes.

Senator NUNN. I just would like to say to the chairman I appreciate his calling this hearing. I think Senator Jackson has raised questions which need to be answered. I don't think there is any doubt about the fact that airlift is enormously important. We have to determine what is the most cost-effective kind of airlift.

I believe the Department of Defense and witnesses here certainly should address the questions that Senator Jackson has asked.

Mr. Chairman, you pointed out, very capably, in your opening statement after you asked the first four questions, the fifth question which has not been focused at all in any of the coverage I have seen—does it make sense to place 747's in the Department of Defense organic airlift inventory? That is what everybody seems to be missing.

If Senator Jackson prevails with his point of view that outsize cargo is not the primary requirement and bulk is the enormous shortfall, and the 747's can perform that role, if all of those things occur in the hearing this morning, which I am skeptical about, then we get back to the question of what kind of 747 acquisition program makes sense.

I think it is very clear last year before this furor started there was a study done by the Air Force showing the 20-year life cycle cost estimate of equivalent airlift capability and it showed if you buy the 747's, 32 of them, organically, and keep them in the commercial fleet, the lift cycle cost is a total of $7 billion over 20 years.

If you do the same thing with 40 747's in the CRAF program, you spend a total of $1 billion.

When we are talking about saving money I think we should note the large gap, if you conclude the 747 will do the job, which I think is very questionable, but if you conclude that, then you have to ask the question: How do we go about getting that capability?

It is clear that you don't buy the 747. What you do is in effect lease them, and let them be used by the commercial fleet and then you use them in an emergency, which is exactly what the Department of Defense proposed to do.

So, it is not a very appropriate question weighing the 747 acquisition versus the C–5 acquisition. The question is weighing the outsize requirement as to whether you really need C–5's. If you determine you do, then you go ahead with it. If you determine you don't, then you ask the question: How can we most effectively and most efficiently acquire 747's or DC–10's?

Certainly that answer so far is abundantly clear. So I don't think we ought to overlook that very important element.

Chairman TOWER. Now, Mr. Secretary, please proceed.

STATEMENT OF FRANK C. CARLUCCI III, DEPUTY SECRETARY OF DEFENSE

Mr. CARLUCCI. Thank you, Mr. Chairman.

Just quickly to clarify the record on the issue of questions, we received a series of questions from the committee, some 80, throughout March and early April. By April 15 we had responded to 79 of the 80 questions. There were then some additional questions submitted to the Air Force by Senator Jackson on April 2, some 70 questions.

Senator JACKSON. Mr. Secretary, I don't want to interrupt you, but that is not a fact. Eighty questions were submitted to you on March 19. We didn't submit any on April 2. I don't know what you are talking about. They were submitted at the hearing.

Mr. CARLUCCI. Our records show, Senator Jackson, that the questions reached us on April 2, the 70 questions.

Senator JACKSON. Mr. Chairman, I submitted them at the hearing and they were turned over to the staff on the 19th. I want to get this issue settled right now because we got answers that were received at 6 o'clock last night. I had left. Dr. Smith received the questions. Then I understand some more have arrived, but we don't have them. I just want to state what the facts are.

The letter and the series of interrogatories were on March 19. It was in an open hearing, Mr. Chairman. Here we are, the whole purpose of this hearing, and we don't have answers to the questions.

Mr. CARLUCCI. We will be glad to try to work out the dates with your staff.

Senator JACKSON. Don't you agree though that this is rather unusual?

Mr. CARLUCCI. We do feel that we have responded to a large number of questions that were submitted to us by the committee staff in March. We have not, it is true, responded to all of your questions.

Senator JACKSON. It was over my signature. It was submitted in the hearing, Mr. Chairman, on the 19th. I am not trying to be petty about this, but we have checked with the staff over and over and asked them if the answers have come in and the answer has been "No."

Chairman TOWER. Senator Jackson, maybe I can clear the atmosphere on that. It is my understanding that the complete questions were submitted in writing in the evening of March 22. They were not transmitted to the Department of Defense until March 29. That was the result of staff error.

By virtue of the fact we were engaged in markup at the time, I am afraid that might have slipped through the cracks. I will have to accept responsibility for the delay. They were submitted to the Department on March 29.

Senator JACKSON. I appreciate that, Mr. Chairman. Nevertheless, this is the 16th, 3 weeks later, and some of the questions have not been answered, Mr. Secretary.

The questions were all relevant and extremely pertinent to the purpose of this hearing. So it is still no excuse not to have answers up here.

Chairman TOWER. What I would suggest is that we go ahead and proceed with the hearing and see if any of these questions are responded to in the testimony presented to us and then follow up with any unanswered questions.

Mr. Secretary, if you will proceed.

Mr. CARLUCCI. Thank you very much, Mr. Chairman.

Let me say at the outset that as we started our budget process this last year we identified, early on, strategic mobility as one of our most critical needs. In order to set an objective, in rough terms we said that we needed the capability to deploy forces to the Persian Gulf over the midterm and then reinforce Europe and key positions in the western Pacific.

That required a balanced program of airlift, sealift, and pre-positioning. Our proposal is as follows:

AIRLIFT.

Adding 17 million ton-miles per day of capacity.

SEALIFT

Converting eight SL–7's to roll-on/roll-off configuration, expanding the Ready Reserve Fleet and improving our ability to unload cargoes in areas where modern port facilities are not available.

PRE-POSITIONING

We intend additional pre-positioning both in Europe and Southwest Asia.

In terms of the kind of airlift we need, we reported to the Congress on our needs in the congressionally mandated mobility study. This study examined four scenarios typical of our requirement and it recommended adding 25 million ton-miles per day of capacity of which at least 10 million should be for outsize cargo.

Our program provides 17 million ton-miles of which 8 million is for outsize cargo. How do we achieve this balanced capability? By the purchase of 50 C-5's and 44 KC-10's as well as a new CRAF enhancement program or another program to augment our oversize capacity starting in fiscal year 1984.

Boeing, as Senator Jackson has indicated, proposed that we buy 747's instead of C-5's and KC-10's. It is true that this is less costly although not as much as Boeing claims. We think that the full cost to the Government is at least a third higher than has been presented by Boeing. But more significantly we believe that this would give us less capability. We face a very significant outsize constraint, which will be addressed by some of my colleagues this morning, in meeting our military deployment requirements.

The 747 is not an outsize airlifter, which Boeing admits. So, we think the President's program with its mix of C-5's, KC-10's, and CRAF enhancement is a flexible, cost-effective, near-term solution to our serious intertheater airlift shortfall.

Mr. Chairman, my colleagues will make brief statements and then General Burke has a presentation which will expand on some of the points I have made.

[The prepared statement of Frank C. Carlucci III follows:]

PREPARED STATEMENT OF FRANK C. CARLUCCI III, DEPUTY SECRETARY OF DEFENSE

Improving this Nation's ability to deploy forces rapidly, to wherever they are needed, is one of this Administration's primary goals. A robust airlift force is the key to such a capability, because only airlift has the speed and flexibility to respond quickly to unanticipated situations. I am therefore pleased to testify in behalf of the Department's airlift programs. I will outline the program we are proposing, and its rationale. The Air Force testimony will provide additional details.

AIRLIFT, SEALIFT, AND PRE-POSITIONING ARE NEEDED TO DEPLOY OUR FORCES EFFECTIVELY

Before I describe our airlift proposals, let me briefly review our overall mobility goals and programs.

Our long-term mobility goals recognize that we must have the capability to respond in a conflict that might involve the Soviet Union. We cannot assume that such a conflict would be confined to a single theater of operations, even if we might attempt to do so.

Our mid-term objective is the ability to deploy forces to the Persian Gulf and then to reinforce Europe and key positions in the Western Pacific should a conflict spread. Although we treat this scenario in considerable detail for planning purposes, we must also ensure that our mobility forces have the flexibility to respond to other contingencies that we cannot anticipate.

Our program to achieve these objectives involves improvements to all three components of our mobility forces: airlift, sealift, and pre-positioning.

In airlift, the five-year defense program proposes adding 17 million ton-miles per day of cargo capability to the fleet, and maximizing the capability of existing aircraft by procuring adequate spare parts. I will return to the airlift program we are proposing in just a moment.

In sealift, we propose converting all eight SL-7 fast container ships to a roll-on/roll-off configuration to take full advantage of their potential for deploying the Army's heavy forces. We are also continuing to expand the amount of sealift rapidly available to us in the Ready Reserve Fleet. Finally, we are improving our capability to unload cargo in areas where modern port facilities are not available.

We are also proposing extensive additions to our pre-positioning programs. By prepositioning war reserves in key locations worldwide, we free airlift and sealift from the need to move large quantities of easily stored bulk cargo in the initial days of the deployment. In Southwest Asia, we are proposing additional shipboard pre-positioning, and are seeking options for land-based storage as well.

Pre-positioning unit equipment, in addition to war reserves, permits us to deploy units even more rapidly. In Europe, we plan to pre-position equipment for two additional Army divisions and a brigade-sized Marine force. In Southwest Asia, we plan to store equipment for three brigade-sized Marine forces afloat on specially configured maritime pre-positioning ships. The Air Force is also planning to store support equipment in both Europe and Southwest Asia.

Pre-positioning partial sets of equipment can reduce the airlift needed to move these units by about 90 percent. Much of the residual equipment that must be moved by air is composed of outsize items that do not store easily.

All three programs—airlift, sealift, and pre-positioning—must proceed in parallel. Without adequate airlift, our pre-positioning is to no avail. Without adequate pre-positioning and airlift to deliver initial defensive forces, sealift may have no place to unload. Without rapidly responsive sealift, our initial forces may be overrun.

BOTH OUTSIZE AND OVERSIZE ENHANCEMENTS ARE NEEDED FOR OUR AIRLIFT FORCE

Now let me turn to the specifics of our airlift program.

Our goal for additional airlift is based on the Congressionally-Mandated Mobility Study (CMMS). That study examined four potential scenarios and concluded that additional airlift, sealift, and pre-positioning were needed in every case. Although none of those scenarios corresponds precisely to the scenario used to develop our mid-term mobility objective, they are sufficiently similar that we find that the programs CMMS recommended are appropriate for achieving our objective as well.

For airlift, CMMS recommended the addition of 25 million ton-miles per day of cargo capability, at least 10 million ton-miles per day of which would be for outsize cargo.

In recent weeks, questions have been raised about the validity of the outsize cargo requirement. Those questions are based on only one CMMS scenario and one measure of effectiveness. When the full range of scenarios and measures of effectiveness are considered, CMMS clearly shows that additional outsize capability is more advantageous than additional oversize capability. Outsize capability must comprise a considerable part of our added 25 million ton-miles per day if we are to maintain a balanced airlift capability.

To achieve a balanced capability, our airlift program has four components. Besides the C-5s and KC-10s, which have been widely discussed, we have also reserved funds beginning in 1984 for additional oversize airlift. Our funding profile is structured for a revitalized CRAF Enhancement program, but alternatives such as the purchase and conversion of used, wide-bodied commercial aircraft are also being examined. Collectively, these three programs will add 17 million ton-miles per day of capability toward our goal of 25 million ton-miles per day.

We plan to use the remaining funds in the C-X program to continue C-17 R&D at a low level. This will preserve the option of developing the C-17 for procurement in the late 1980s and the 1990s to provide the remainder of the 25 million ton-miles per day of capability recommended by CMMS, and perhaps to replace some of our existing aircraft when they reach the end of their service lives. The C-17 would also provide the capability for intratheater movement of outsize cargo.

THE BOEING PROPOSAL DOES NOT MEET OUR REQUIREMENTS, ALTHOUGH IT PROVIDES INTERESTING OPTIONS FOR THE LONGER RUN

Critics of our program have charged that it is more costly than necessary, contending that additional C-5 aircraft are not needed and wide-bodied commercial freighters could be acquired at lower cost and more quickly. Specifically, the Boeing Company has proposed buying 747 freighters instead of C-5s, or in lieu of both C-5s and KC-10s. I wish it were possible to recommend the Boeing proposal. There certainly are many good uses to which the funds thus saved could be put. Unfortunately, we do not believe that total reliance on commercial aircraft for our entire increase in airlift over the next five years is a wise course.

In reaching this conclusion, we have considered costs, performance, and the uncertainties that confront us in the real world. Let me take each of these in turn.

There is no denying that 747s would cost less than C-5s. The savings, however, are much smaller than has been suggested. When the full costs to the government

are considered, we find that the total cost of the Boeing proposal would be at least a third higher than reported.

Is the C-5's added cost justified by its performance? One of the strongest advantages of airlift is its ability to deliver initial defensive forces and their critical support before even the fastest sealift can arrive. If we compare the performance of the DoD program with the Boeing alternative during this initial period in each of the CMMS scenarios, we find that the DoD program is considerably better at deploying Army and Marine Corps forces. This result is particularly striking should we need to reinforce Europe subsequent to a Persian Gulf deployment. In that case, we find that the DoD program provides at least a third more capability to deliver Army or Marine units than the Boeing alternative.

Moreover, as we expand our airlift program, we find that inadequate outsize capacity is the binding constraint. Put quite simply, this means we will not be able to meet our military requirements without additional outsize capability.

I have already argued that the near-term improvements are well worth the cost, quite apart from the absolute, longer-term requirements for additional outsize capability. But let me note one further point of great importance.

We probably will not finish adding 25 million ton-miles per day of airlift before the early 1990s. In the interim, a wide variety of contingencies may occur in which we would be called upon to use our mobility forces. We cannot be sure what the precise demands of those situations will be in terms of outsize versus oversize cargo, or the need for tanker support. Consequently, the more flexible our airlift fleet, the better prepared we will be. The C-5, with its ability to carry the full range of military equipment, and the KC-10, with its ability to act as a tanker or cargo carrier, provide just such flexibility.

In short, Mr. Chairman, we believe the program we're proposing is the most cost-effective alternative. It is badly needed to enhance the capability of our conventional forces. I urge the Congress to approve it.

STATEMENT OF GEN. LEW ALLEN, JR., CHIEF OF STAFF, U.S. AIR FORCE

General ALLEN. In the interest of time, I have a statement I will submit for the record and will simply summarize it very briefly by saying the program which has been submitted is one which the Air Force supports completely and believes is the best program for addressing what is a serious shortage of airlift to meet the requirements of our national policy.

We believe the program has been carefully considered, is a proper one and that we can execute it well as we proceed. But the matter does have complications.

I believe the briefing to be presented by General Burke will serve better to explain those in more detail now.

I will submit my statement for the record and will defer to General Burke.

[The prepared statement of Gen. Lew Allen, Jr., follows:]

PREPARED STATEMENT BY GEN. LEW ALLEN, JR., CHIEF OF STAFF, USAF

Mr. Chairman, members of the committee, I welcome the opportunity to appear before you today. As Mr. Carlucci has indicated, we strive to provide a vitally needed airlift contribution to the DOD mobility program. Equipment prepositioning, sealift and airlift are all essential parts of the Nation's overall mobility program. Each is required. The key attributes of airlift are its flexibility and responsiveness. Airlift moves men and material from the United States to distant theaters in the early hours and days of crisis or conflict when such movement of combat forces is critical.

The United States has major defense commitments in Europe, Southwest Asia, Korea and elsewhere. Our national strategy relies upon combat forces at a high state of readiness in the United States which can be moved quickly to the combat zone ready to fight. We plan to move essentially all personnel by air and that equipment which they require for the early portion of the battle. Speed, flexibility, and responsiveness are key to our modern concept of economy of forces and central, though long, lines of communication. To move troops during wartime we have long

planned to use the Nation's large commercial passenger aircraft resources under the civil reserve airfleet—the passenger CRAF program—thus making cost-effective use of this substantial capacity.

To transport materiel we rely on a mix of military and civil cargo aircraft. Civilian aircraft made available under the CRAF program can transport bulk and oversize cargo. And we now plan 67 747 equivalent aircraft to be available for national emergency. We also operate a fleet of C–141 aircraft which transport bulk and oversize cargo and which have a set of important military characteristics. That is: Air drop, lapes, combat off-load and mid-air refueling. These capabilities do not show up much in terminal to terminal calculations, but result in the 141 being a real work horse for combat operations. Our fleet of C–130's serve as tactical airlifters and move cargo within a theater—they are also limited to bulk and oversize cargo. These aircraft, 141's and 130's, are very important in wartime because of military performance capabilities but are generally unsuited for civil use and therefore form most of our organic fleet.

But there is a clear requirement for the movement of large, outsize equipment—self-propelled artillery, fighting vehicles, tanks, helicopters, and communications vans. Some of this equipment is in critical supply—must be moved forward with first troops and is likely to make the difference in early responses. The specialized aircraft in our fleet for such movement is the C–5A. This aircraft is also designed to have a set of military capabilities of importance. These include: High flotation gear, roll on roll off loading, truck bed height, high wing and engine clearances, refueling, high strength floor, and large box size. These capabilities in a decade of service have made the C–5A a unique and valuable organic lifter.

As we have studied the performance of airlift, we have long been aware that we have insufficient capacity to meet the requirements dictated by national policy. The shortage is not in personnel carriers, but is in cargo capacity both inter-theater and intra-theater. Over the past few years we have set out to identify and acquire the proper mix of airlift resources to meet this clear requirement for additional, responsive lift. For the movement of bulk and oversize cargo, we investigated a range of options including procurement of existing commercial wide-body airlift (DC–10 and B–747), acquisition of additional KC–10s, and funding cargo conversions of commercial wide-body aircraft through the CRAF program. This program, through contractural arrangements with civil carriers, provides the Air Force additional capability to augment its organic airlift fleet during crisis or wartime. CRAF currently represents 40 percent of our total airlift capability. It provides relatively low cost lift because we only pay full operating costs for the aircraft when they are used for military purposes in time of crisis or war. Virtually every cargo B–747 and DC–10 owned by U.S. domestic carriers is already committed to the CRAF. We also made major adjustments in our budgets to improve the productivity of our current fleet, rewinging C–5As, stretching 141s, and fully funding that war reserve materiel needed to support the fleet. To augment the fleet, we studied a new lifter, the C–X, which would have outsize capability, be smaller than the C–5, and provide capabilities for both inter and intra theater airlift. This aircraft was specified to have the full range of military capabilities we feel are important. The ultimate design for this aircraft was the McDonnell C–17. However, in the final stages of budget preparation we concluded that a competitive offer of the C–5B plus added KC–10s provided us early confident lift addressed to the inter-theater problem and we selected this approach. The fixed price contract with Lockheed offers us confidence in the cost of production. With an established training, logistical and operational support structure in being, the C–5b can be quickly and efficiently integrated into our airlift forces. The C–5bs will enter operational service as soon as they roll off the production line. We are also requesting funds to expand CRAF cargo-carrying capability.

As I noted above, the only aircraft now capable of fulfilling the outsize requirement and the unique military requirements is the C–5. Our program now calls for the acquisition of 44 additional KC–10s, which provide both refueling and cargo-carrying capability, and 50 C–5Bs.

We believe strongly that the program is sound. As we add transport aircraft to our organic fleet we gain flexibility—we cannot see the future clearly, we would be ill advised to restrict our buy to aircraft that do not have outsize capability or needed military utility.

General Burke will now provide a more detailed description of our proposed airlift improvement program and the reasons why we believe we should proceed with the acquisition of additional C–5s and KC–10s.

STATEMENT OF GEN. JOHN W. VESSEY, JR., VICE CHIEF OF STAFF, U.S. ARMY

General VESSEY. Mr. Chairman, thank you.

Our national strategy calls for the ability to project forces rapidly throughout the world. Today that capability is inadequate. In the simplest terms we in the ground forces, both Marine Corps and Army, need a ride to the fight, whether that ride be by airlift or sealift or whatever.

We have the best strategic airlift capability in this world, but studies have continually proved it is inadequate to carry out the missions assigned to us. Earlier this year during the posture statement hearings both Secretary Marsh and General Meyer, Chief of Staff of the Army, emphasized the need for improvements in the strategic airlift program.

They specifically emphasized the need for cargo aircraft that can move outsize cargo rapidly both within the theater of operations and between theaters.

The Army participated in the congressionally mandated mobility study and agrees that the results serve as a good general guide for courses of action to improve our strategic deployment capability. This study along with several others has documented once again the need for additional mobility forces and particularly the need to lift outsize cargo.

The Army supports the airlift program as presented in the DOD fiscal year 1983 budget.

I have submitted a longer statement for the record.

Thank you.

[The prepared statement of Gen. John W. Vessey, Jr., follows:]

PREPARED STATEMENT BY GEN. JOHN W. VESSEY, JR., VICE CHIEF OF STAFF, U.S. ARMY

Mr. Chairman and Members of the Committee thank you for this opportunity to present our views on the airlift needs of the United States Army. The ability to deploy our available fighting and support forces to the battlefield in sufficient time to influence the battle outcome is a major Army concern. The Army's movement requirements in the early stages of a conflict in either Southwest Asia or Europe account for about three-fourths of the total requirements of all Services. As the largest user of airlift, we are pleased to provide our views to this committee.

Today, I would like to address two examples of deployment requirements taken from the Congressionally Mandated Mobility Study.

As you are aware, Army forces are rarely employed separately. We deploy and fight as part of a joint force to optimize the unique, but complementary, capabilities of each Service in a theater of operations. In such a deployment, all units of the force are competing for available lift. Priorities for movement are determined by the theater commander based on his concept of operations. Consequently, except for specific units, there is no such thing as a pure Army airlift requirement. Some Army forces and sustaining supplies are needed earlier in the theater than can be delivered by sea. In NATO, for example, early force requirements can only be met by a combination of forward deployed forces and POMCUS. However, POMCUS still requires the airlift of personnel and residual unit equipment prior to initation of hostilities to make POMCUS a viable means of reinforcement.

The geographic location to which we are deploying—are critical variables. So too, is the nature of the force we would oppose and the terrain over which we must move and operate. Thus, it is misleading to speak of a single, absolute "requirement" for all situations and all scenarios. To help overcome this problem, we examined a range of scenarios in order to determine a range of probable requirements.

The Army places a very high premium on our strategic airlift forces because of the critical need to deploy forces rapidly in any conflict situation. In any non-NATO crisis, the early requirement to secure airfields, ports, lines of communication and

defend against hostile forces is heavily dependent on airlift. Our airlift forces should be responsive, operationally flexible and capable of transporting Army units and equipment from their home bases as close to the area of operations as feasible.

Airlift aircraft should be quickly and easily loaded and offloaded, and capable of transporting our weapons systems so they arrive in a fighting configuration ready for immediate employment. Preferably, these aircraft will require minimum time and resources for cargo preparation time and disassembly by the crews for deployment. this alleviates the complicated reverse process at the finai destination and expedites employment of the units in the theater. Today, we must disassemble or reduce several items of outsize combat equipment such as communications vans, artillery pieces and cranes to load them aboard nonoutsized military and CRAF cargo aircraft, primarily because we lack sufficient outsize capable airlift to transport our equipment in a fighting or operationally ready configuration. Some equipment can be disassembled or reduced for movement on C–141s, but as the danger of going directly into combat increases, so does the risk. For example, to reassemble the Infantry Fighting Vehicle if moved by a C–141 requires 3.8 clock hours but no disassembly is required if moved by an outsized aircraft. The Army's new advanced attack helicopter requires four clock hours to reassemble if carried by a C–141 compared to 1.5 hours when carried by an outsized aircraft. We are aware of the need to limit the size and weight growth of our combat systems to make them compatible with existing and programmed airlift forces. We are taking actions to improve the deployability and fighting capability of our forces through initiatives such as the 9th ID High Technology Test Bed and development of lighter equipment such as the mobile protected gun. Even with these initiatives, our airlift capability, particularly outsize, is inadequate to meet our current and future deployment needs.

Thus far I have described our views for the intertheater deployment of forces, but I must tell you that getting our forces from the major airfields into the battle is equally important. The C–130 aircraft is not capable of transporting any of our large outsized, heavy weapons and supporting systems within the theater. We would prefer an outsize capable airlifter that will deliver our forces and equipment well forward, and one which has the flexibility to operate through a greater number of airfields. This would reduce closure time and get us closer to our operating locations.

I will describe the Army's movement requirements in two scenarios: for the first 20 days to support operations in Southwest Asia and the first 10 days in Europe.

These two scenarios correspond to those used in the Congressionally Mandated Mobility Study, with which you are familiar. The Army participated in this study from its beginning, and we supported the recommended mobility programs forwarded to the Congress. Further, the Army lift demands used in the study are reflective of our deployment requirements for both Southwest Asia and Europe.

Tonnage requirements, for the unit equipment of the major combat forces, necessary sustaining support and supplies to be deployed to [deleted].

This includes the entire range of combat, combat support and combat service support units and the supplies they would consume. About 37 percent of the total unit equipment tonnage in this period is outsize cargo. About 27 percent or [deleted] of the total requirement is outsize cargo. Today, even under full mobilization with current airlift assets we can only close one airborne division and most of its sustaining support in 30 days. Most of the Army's outsize combat, combat support and sustaining equipment needed early must go by sea because the current airlift fleet is insufficient.

Additional intertheater airlift will certainly speed our deployment to the theater. Should we be forced to fight at extended distances from major airfields, the C–130 tactical air fleet can move by air much of our equipment and supplies. Outsized equipment like 5-ton cargo trucks, engineer equipment and large tracked vehicles would have to go by road which would necessitate an earlier deployment of transportation units to move cargo and engineer units to man the lines of communication.

In 1988, assuming planned improvements (C–5B/KC–10 and CRAF enhancement) are achieved, we should be able to close [deleted]. This represents a significant improvement in our capability to deploy forces to the theater. However, without the additional C–5 and KC–10 aircraft, about 35 days would be required to move these forces.

The Army is committed to providing a 10 division force to NATO after 10 days of mobilization through a combination of forward deployed forces and POMCUS. We believe this is the minimum force required to meet a Warsaw Pact attack in the Central region until additional forces arrive by sea. Currently we have three division sets of POMCUS, with a fourth set nearing completion by the end of this year.

Forces deploying to POMCUS, still must carry with them equipment that cannot be pre-positioned. Examples are helicopters, ADP and communications systems and air defense artillery much of which is outsized cargo. However, if we had to reinforce NATO today we would [deleted]. Currently, there is a requirement to move 16,000 short tons of outsized equipment not authorized for POMCUS and POMCUS equipment shortages, plus 64,844 short tons of outsized equipment for early deploying forces not pre-positioned.

In 1988, we are projecting that we will have six sets of POMCUS in Europe. Assuming that a conflict occurs first in NATO, and that the President's current strategic airlift program is supported, we estimate that [deleted]. Programed lift improvements and continued fill of POMCUS should significantly improve our ability to reinforce NATO. However, if war were to occur first in Southwest Asia, such as Scenario II of the Congressionally Mandated Mobility Study, our deployment capability will be significantly less than projected.

We continue to examine every feasible way to deploy forces sooner by pre-positioning unit equipment and supplies and negotiating host nation support agreements to reduce the types and number of units required. As you know we are pre-positioning supplies afloat in the Indian Ocean to reduce early airlift demands, and we are developing plans for use of facilities in Southwest Asia to stage our forces prior to a conflict and give us a head start on strategic deployment. Even with these initiatives, airlift capability remains inadequate for the timely projection of our forces. As the Chief of Staff of the Army has testified to you before, the greatest shortfall is in outsize capability.

In several studies conducted over the years, we have uncovered many deficiencies requiring corrective action. We intend to continue to focus on these challenges. I solicit your support for the airlift programs before you. No matter how we vary the assumptions of realistic warning time, host nation support and onward movement capabilities, we need more airlift and more outsize capability. We clearly do not yet have sufficient airlift.

STATEMENT OF GEN. P. X. KELLEY, ASSISTANT COMMANDANT, U.S. MARINE CORPS

General KELLEY. Thank you, Mr. Chairman.

I have also submitted a statement for the record. With your indulgence, however, I would like to make a few supplemental remarks. I will try to be brief, although this may not be totally possible because, for the last three years, Mr. Chairman, I have done everything in my power to enhance the extremely austere strategic airlift available within this Nation of ours. I must tell you that I have failed, and fail is a word which we Marines find very hard to use.

Please don't misunderstand me. We have had unanimous support for more strategic airlift. I fully appreciate that, but all of that support thus far appears to be in the form of rhetoric and I must say, sir, rhetoric does not deploy combat power, ships and aircraft do. So we must get on with the program.

We have today, I believe for the first time a consensus among both the users and the suppliers on a responsible and reliable program which goes a long way toward redressing the shortage of strategic airlift.

I think of equal importance, we have a program which improves significantly critical shortages of our airlift capable of carrying outsize, and I don't like to use the word cargo, I like to use the words combat equipment because that is what most of it is.

In your addressal of this vital issue, Mr. Chairman, I ask that you think hard of the demand for the movement of outsize combat cargo in any conflict against the Soviet Union. I would find it extremely difficult to envision a situation whereby we would not im-

mediately reinforce or posture on a global basis if we actually believed we were on a collision course with the Kremlin.

If there is anyone in this room who truly believes that we could move sufficient outsize equipment in such a global context, and I mean move it simultaneously because that is what the requirement would be, worldwide simultaneously in the paltry 70 C–5s that we have available in the military today, then I am wasting my breath.

You have me here to ask me my best professional judgment. My best professional judgment says, sir, we cannot do that. I have no axe to grind, Mr. Chairman. I come from a service that normally projects its power from the sea. I have an obligation to you and this Committee however, to be totally honest with you in my opinions regarding strategic airlift.

The only reasonable and responsible alternative I have seen thus far is the one which has been presented to this Committee in the President's budget. This will help to go a long way toward correcting a serious shortfall in our ability to move helicopters, infantry fighting vehicles, self-propelled artillery: in a generic sense combat power.

I am quick to add that our requirements for outsize cargo are not shrinking. If anything, they are expanding. The credibility of the United States, sir, to deploy adequate combat capability on a global basis is the issue which I believe should be addressed by this committee today.

Thank you, Sir.

[The prepared statement of Gen. P. X. Kelley follows:]

STATEMENT OF GEN. P. X. KELLEY, U. S. MARINE CORPS, ASSISTANT COMMANDANT OF THE MARINE CORPS, AND CHIEF OF STAFF

Mr. Chairman, Members of the Committee, Thank you for this opportunity to appear before you today. The Marine Corps considers airlift to be a critical component of strategic mobility and we have a keen interest in any programs which may improve the deployability of our combat units.

Currently, our requirements for strategic airlift in support of major contingencies include 711 sorties for Southwest Asia and 1,122 sorties each for NATO and Korea. The Southwest Asia requirement will increase in the next five years to 1,311 sorties as our Maritime Pre-positioning Ship (MPS) program comes into being.

Marine Corps requirements for outsized lift in these major scenarios account for about four percent of the total airlift sorties. At first glance, this percentage may appear minor; please let me assure you, it is not. Our outsized lift requirements include items that are critical to early initiation of combat operations; for example, tanks, assault amphibian vehicles, self-propelled artillery and helicopters.

The early delivery of our CH–53 and CH–46 helicopters is critical to our existing and future requirements in support of the Near Term Pre-positioning Force (NTPF) and MPS brigades. We are dependent on outsized airlift to get those helicopters into position to enable the brigade to attain an early combat capability. As a matter of fact, the relative scarcity of outsized lift is a principal factor, in our decision to configure the air combat element of our MPS brigades with fewer helicopters than normally associated with such a Marine Air Ground Task Force (MAGTF).

Our requirement for oversized airlift equals about 66 percent of the total sorties involved in our deployment in support of major scenarios. This equipment is also critical to our projection of combat power. It includes COBRA attack helicopters, HAWK air defense missile launchers and most of our heavy tactical wheeled vehicles. Consequently, we view the requirement for outsized and oversized airlift to be two equal parts of the whole.

The issue of loadability is of concern to us. Strategic airlift obviously provides rapidity of movement. It is equally important that airlift be capable of transporting standard items of combat equipment without degradation of employability due to requirements for major reconfiguration on arrival. Our requirements are reasonable. We expect to have to spend several hours in reassembling our larger helicopters

after debarkation. What we do not need at that point in a contingency deployment is a requirement to extend the time or complicate the process of reconfiguration. Simply stated, the less time spent in reassembly, the better.

Unit integrity is important, but MAGTF integrity is critical. We realize that we may have to spread-load drivers and operators that accompany their outsized equipment, but it is essential that the MAGTF be deployed and employed as an integral combat unit. Any degradation of combat power caused by the piece-meal availability of units not fully assembled, equipped or ready to fight is a dangerous waste of a valuable capability.

I anticipate that our overall requirement for airlift will increase over the next several years with the advent of our three complete MPS brigades.

I would like to reemphasize our particular requirement for transporting the entire airlifted echelon of the NTPF/MPS brigades into theater in time to meet the arrival of the ships. Outsized lift to meet the required response time must be sufficient in quantity and capability to deliver the helicopters and other vital combat equipment without significant reassembly requirements. Currently, only the C-5 provides this capability.

To a Marine Commander, getting his forces, equipment and material to a crisis point on time, in proper order and in condition to fight is of crucial importance. I would like to see us support that commander to the best of our national capabilities.

Thank you.

Chairman TOWER. Thank you, General Kelley.

General Burke, do you want to make your presentation now?

Let me suggest this. We have had three terms used here that probably should be clearly defined and clarified for the benefit of the committee—outsized, oversize and bulk. I hope that you will cover those in the course of your briefing.

STATEMENT OF LT. GEN. KELLY H. BURKE, DEPUTY CHIEF OF STAFF, RESEARCH, DEVELOPMENT & ACQUISITION, U.S. AIR FORCE

General BURKE. I will, sir. I would like to start by explaining to the committee what is in the airlift forces today. We have military airlift aircraft owned and operated by the U.S. Air Force, 77 C-5s, 269 C-141s, about 550 C-130s and we have 16 of the KC-10s which is a plane that can carry cargo, but also is a refueler.

Important to our airlift plans—critical to our airlift plans are the aircraft not owned and operated by the Air Force—but that are owned and operated by the U.S. airline industry. At the urging of Congress, the Air Force has long followed a policy of relying on the American airline industry to carry what share of the load that industry can. There are over 200 commercial passenger carriers available to us and that is adequate to move the passengers we need to move.

There are also freighters in commercial service in the American airline industry, over a hundred of them, and virtually all of them are part of the CRAF program. We express that in terms of 747-equivalent and that is 67 airplanes. That is all that is in the American air freighter industry. That is sized by the marketplace, not the Air Force. Whatever is out there we take.

To return for a minute to the capability I just expressed on that slide as compared to the requirements, it has been expressed in many ways. I think the most recent, the most authorative, and probably the best understood study on the subject is the Congressionally Mandated Study that Senator Jackson and Secretary Carlucci alluded to.

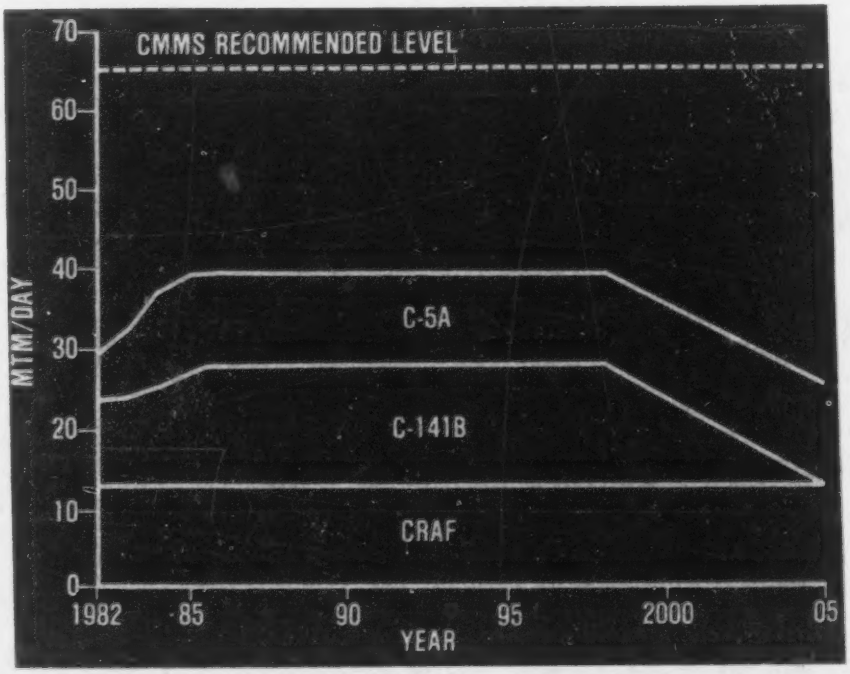
CONGRESSIONALLY MANDATED MOBILITY STUDY

Directed by Congress in fiscal year 1681 Defense Authorization Act; conducted by JCS & OSD; analyzed four scenarios, Major conclusions: Additional airlift, sealift, and pre-positioning required; recommended airlift increase of 25 mtm/day, 10 mtm/day to be outsize capable.

It was a study done at the request and direction of Congress, which felt that these mobility issues had not been adequately addressed—done not by the Air Force, but by the Office of the Secretary of Defense, and the Joint Chiefs of Staff, with support from the services.

It considered four scenarious, not that anyone holds out that we can write a scenario that will predict exactly how war unfolds. But they were scenarios that were first selected in the general sense by the Congress and reviewed by the Joint Chiefs of Staff and matched as closely as possible to actual war planning that is done by the JCS.

Out of that rather exhaustive effort came two major conclusions. One, that indeed we were short of all forms of mobility and we needed more sealift, more pre-positioning, and more airlift. In specific regard to airlift, the report recommended that we increase our military airlift capability by 25 million ton-miles per day, of which at least 10 million ton-miles should be outsize.



The President's budget does not achieve that over the 5-year period of the budget, but it moves very nicely in that direction by adding 17 million ton-miles per day and I will describe that a bit more.

This is the airlift that is available now (with improvements and modernization underway) without the addition of new C–5's, new

KC–10's or any other new aircraft. It is basically an airlift capability that gets the maximum mileage out of what we already own. It retains all those freighter CRAF's, the 73 747-equivalents. That is the assumption that CRAF will stay steady. It might go down and it might go up. Some projections are that it may go up substantially in the nineties, but we are not sure of that.

The C–141 we have stretched and improved, and the C–5A remains. We are in the process of buying an adequate number of spare parts to allow us to fly each of these airplanes to their full capability in the event of emergency. When that is done that brings us to 40 million ton-miles per day. That leaves a gap of 25 million that the CMMS recommended we fill.

ALTERNATIVES FOR REDUCING AIRLIFT SHORTFALL

Available wide body aircraft: CRAF modification of 747 or DC-10 passenger aircraft; purchase 747 or DC-10 cargo aircraft; purchase more KC-10 aircraft.
Aircraft with outsize capability and military features: C-17 and C-5B.

In considering how to fill that shortfall we tended to look at the problem in two ways. One, wide-bodied aircraft that would presumably be available quicker and at less cost, and two, aircraft which had not only outsize capability but military characteristics, and I will describe those a bit more later.

In the first section our first goal was indeed to have a vigorous increase in our CRAF program. The 73 747-equivalents I mentioned are in the freighter configuration because that is the way the airline industry wanted them. They have in effect bought all they feel are appropriate for the available market.

We now proposed to go another step and that is to modify aircraft that the airlines were buying for passenger purposes (DC-10s, 747s) put in stronger floors and wider doors with the Government to pay for the penalty to carry that extra weight.

Half the airplanes today fly passengers and in an emergency could be converted to carry cargo. We were frustrated in the effort. By the time congressional approval for that was obtained, there was virtually no production of either the 747 or the DC–10.

We then investigated the possiblity of doing that with airplanes already in service, but by the time the additional penalty of taking them out of productive service for that conversion period was considered, the cost came in higher than we thought was reasonable. So we have set that program aside for this year, but we do have monies in our budget for 1984 forward with the hopes and expectation we can go back to that because that is the cheapest form of airlift that we can get.

The cheapest solution of all would be if the industry buys more freighters. If not, the second cheapest is to modify those passenger aircraft.

We also considered purchasing 747 or DC–10 aircraft and owning them. But in looking at that our preference was to buy the KC–10 as opposed to either the DC–10 or the 747. It is in service, it is performing very, very well. It can do a good job as a cargo carrier, but tends to do a better job in the airlift role by refueling C–5s and C–141s which increases their productivity by factors up to 25 percent.

So in that area we decided that we would exercise the option we had for the 44 KC–10s, options that were competitively derived in an earlier competition in which the DC–10 tanker had been selected in opposition to 747 atlernative.

In the other area of aircraft with military features, outsize capabilities, the sources were only two. Either build more C–5s or build new airplanes, the C–17. The C–17 itself was the result of a formal source selection competition between Lockheed, Boeing and McDonnell-Douglas, from which McDonnell-Douglas was selected.

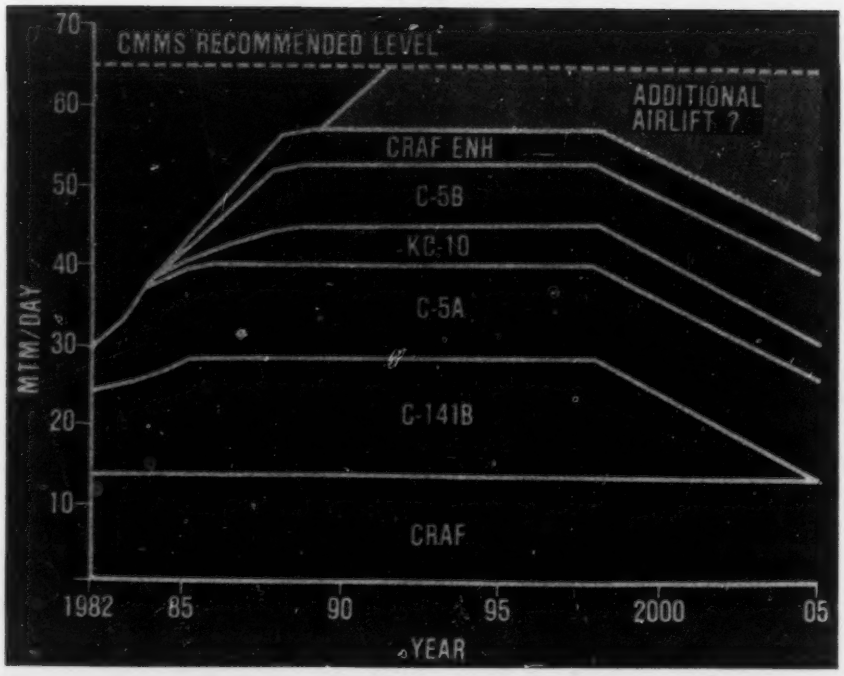
Initially the Air Force recommended and favored procurement of the C–17. It is a newer airplane, a better airplane, with more airlift capabilities than the C–5. At funding levels that we expected to be available, the difference in time availability we thought was not sufficient to warrant the C–5.

In the process of preparing the President's 1983 budget, the Secretary of Defense and Mr. Carlucci reviewed the entire airlift question and concluded that airlift was indeed an urgent and compelling need and deserved a higher priority. They assigned the higher priority and provided increased funding for that purpose.

We were then asked to examine our position in light of the increased authority in funding, and now we found that it was possible on this basis to considerably accelerate the availability and delivery of the C–5s where the C–17, a new development, was not amenable to very much acceleration.

So the gap in availability then widened to at least four years. On that basis, we decided we would be better advised to take a good solution now rather than wait for a somewhat better solution four years hence. That was our recommendation to the Secretary of Defense and the one that he accepted and was incorporated in the President's budget.

Additionally, we were in an informal sense competing between these two areas in comparing the attractiveness of the available wide-bodied aircraft with those outsize capability airplanes.



Once that was done, we project, over the 40 million ton-miles that we will add. The additional 17 million as Secretary Carlucci mentioned. That is divided between eight million ton-miles in the C–5B, which is an outsize capability, four million in additional CRAF or CRAF-like programs, and five million in KC–10, or a total of nine million that is non-outsize.

I think the major question, as pointed out by the Chairman today, is the comparative attraction of the C-5 program and the 747 alternative. I will discuss it very briefly in three areas, availability in time, the cost and the military value.

Conparison of C5B and B747F: Availibility, cost, and military value.

Senator COHEN. Do you rate them in that order?

General BURKE. No, sir. It is a convenient way to discuss them. In fact, I think we can discuss availability very quickly.

The 747 could be delivered on the order of two years earlier after contract signing than the C–5. However, it is important to note that if we were to go for a 747 solution I think it is clear that we would wish to and indeed would be required, to compete that again with the DC–10. So we have to allow for a period, a competitive period, of perhaps six months.

Additionally, the 747, being new to an airlift fleet, once acquired, would initially go into a training phase so there would be another year there. When the allowances are made we estimate in terms of operational availability about a one-year edge in favor of the 747.

COST

[Fiscal 1982 dollars in billions]

	C–5B	B747F	Difference
Number of aircraft	50	48	50/48
Acquistion cost	6.4	3.8	2.6
20 yr life cycle cost	16.0	13.2	2.8

Turning to the cost question there are lots of ways to calculate cost. We tried in a very even-handed way, as best we could, with consistent methodology and application to show a cost comparison between our program incorporated in the President's budget, what we think that will cost, and comparing it with the 48 aircraft buy of 747s proposed by Boeing.

There are arguments in the Pentagon whether that is the right number. We have calculations which show that it is understated. I will for the purpose of this discussion price out the Boeing proposal. We think that would be in 1982 dollars constant, $3.8 billion. That is about a billion dollars higher than the number you have seen in the Boeing proposal.

First, they submitted it in 1981 dollars. I have inflated it an additional year.

Second, we haved added the spares and the support costs just as we have done to the earlier Lockheed proposal which you might remember was $4.9 billion (for 50 aircraft in 1981 dollars) when they first proposed that.

Then we have added in, to gain a more meaningful comparison, the cost of owning these aircraft and operating them over the years. The annual operating costs are very close. Hence the major difference is acquisition. Over a 20-year life cycle, and that probably understates it, more typically we keep transports 30 years at least, the difference is shown as $2.8 billion in favor of the 747. That is about 17 percent less than the C–5.

Senator NUNN. Mr. Chairman, would it be appropriate to ask questions strictly on this chart at this point before we get away from it?

Chairman TOWER. Yes, for clarification purposes, but let's not get into extensive questioning.

Senator NUNN. Is the number of aircraft you have, for C–5 you have 50 and for 747 you have 48, is that essential airlift equivalent in those numbers? Are we comparing apples and apples in terms of numbers?

General BURKE. According to the Boeing calculations, their computer model, that is comparable. When we made the same computer runs using our models, using the actual CMMS loading as opposed to the Boeing, which was a hypothetical loading, we came up with a higher number which was 55.

Senator Nunn. What does that do to your chart then?

General Burke. That would drive that $2.8 billion difference down to slightly under a billion dollars, $0.9 billion.

Senator NUNN. In your computer model you came up with a billion dollar difference between equivalent aircraft in the 747 and C–5?

General BURKE. That is acquisition and 20-year operating support cost.

Senator NUNN. What would be the acquisition cost difference equivalent?

General BURKE. There is very little difference in operating cost.

Senator NUNN. Mostly acquisition. You have $1 billion difference between the two equivalents according to your model.

Chairman TOWER. That is in numbers of aircraft. Can you translate that 50 and 48 in terms of volumetric capacity?

General BURKE. Yes, sir. I don't have that at the tip of my tongue. We can express it in volumetric capacity or ton-mile capability and both will be misleading because when you wind up loading airplanes with actual loads, on some loads you will run to the limit of weight carrying capability. On other loads you will fill up the space and still have excess weight capacity.

The only way to get a real understanding is through the computer model. You take the actual loadings developed by the Army and Marine Corps and load them in the computer and see what you get.

It would appear to us that the 747 alternative is available perhaps a year earlier and is somewhat less costly, although we are not quite sure how much, but we think 17 percent is probably on the high side.

The question is: Is it worth that additional time and money in terms of the extra military value that will be provided by the C–5 alternative?

Military value: Flexibility and responsiveness; and outsize carriage capability.

I think there are two things that need to be considered there. That is, first, that any airplane designed from the beginning for military purposes has a set of military characteristics in it, and I will talk a little bit about that later, that are intended to increase flexibility and responsiveness. Those are not buzz words. Those are very important words.

They have to do with speed and ease with which you can load and unload these airplanes and conditions under which you can operate them. I will try to illustrate that with a few photographs.

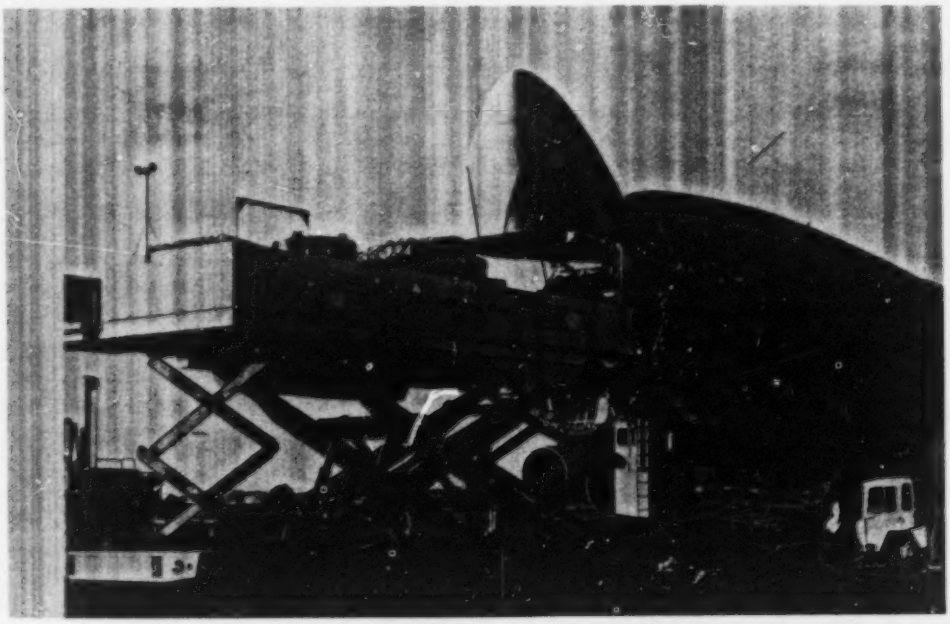
As has already been touched upon, the outsize carrying capability is a matter of great importance from the perspective of all the military services.

I have a chart in a minute that will define outsize and oversize and bulk.

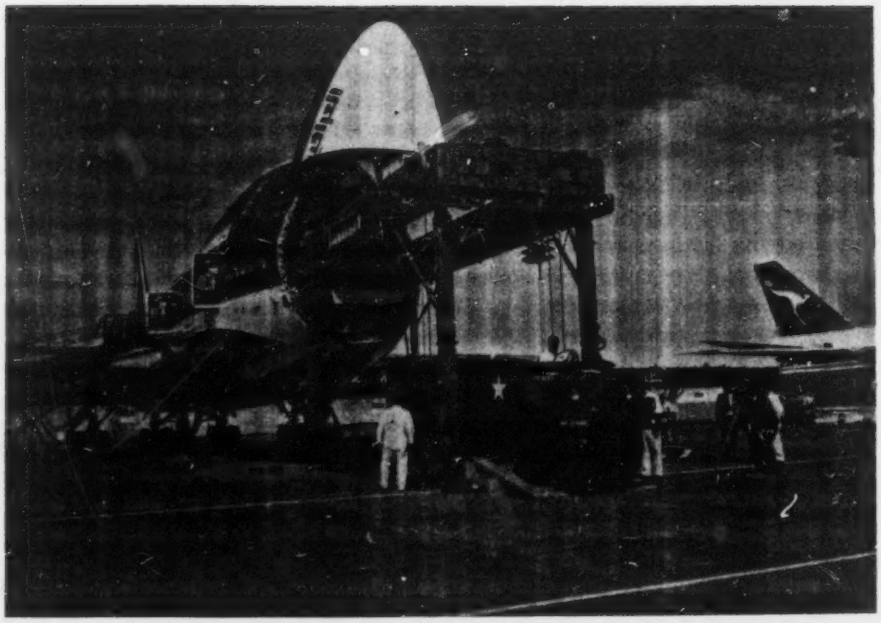
SEABOARD
WORLD

This is a Boeing 747. It is currently in the CRAF program. It belongs to Seaboard World. With it I can illustrate the fundamental differences in design philosophy. When the airplane industry builds a commercial freighter they make the assumption it will spend the bulk of its life operating between main terminals where there will be ample and adequate support equipment and people. They don't pay for extra features for it to operate in places that are remote and don't have such equipment.

The first thing you will notice that is different is the commercial airplanes will have low wings and they will have engines very close to the ground. Military airlift will have the high wing and engines somewhat up. You will notice, for instance, in the military aircraft servicing and crew access will be very easy.



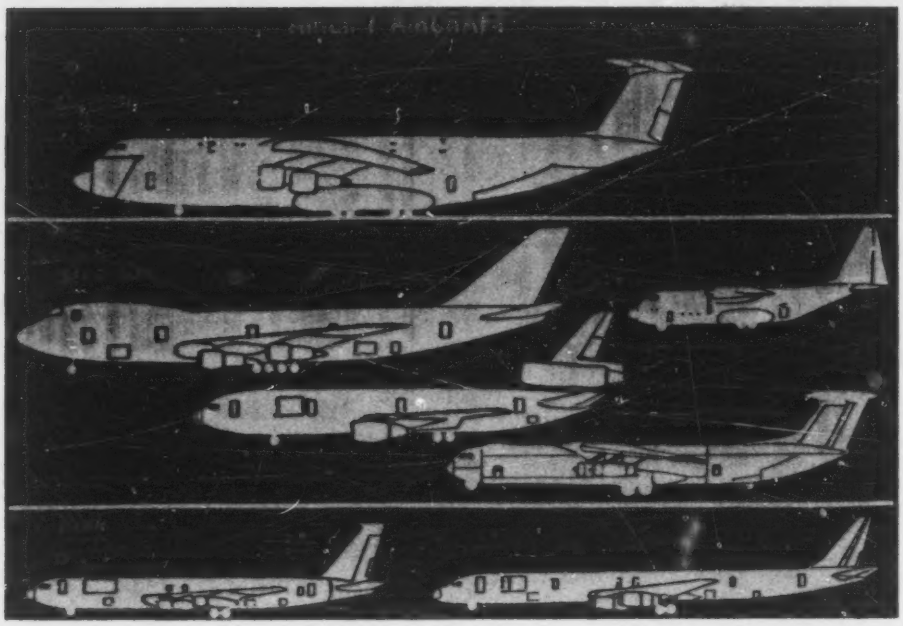
This is the kind of equipment you need just to get the crew into the airplane. This in front is what we need to move cargo in and out. You see, it is fairly large and cumbersome.



Another example of a difficult loading operation is bulky cargo—because of the low wing and high floor you are much higher above the ground. In fact, the 747 floor is 16 feet above the ground. Hence you require some sort of a lift device or extremely long ramp to permit an angle that will let you move cargo off and on the airplane.

This type of lifter is only good for relatively light loads. If you plan to load something as heavy as a two and a half ton truck, and we will show equipment later much larger and heavier than that, then you have to go to another type in which you hoist up to this level and then insert it on pallets inside the airplane.

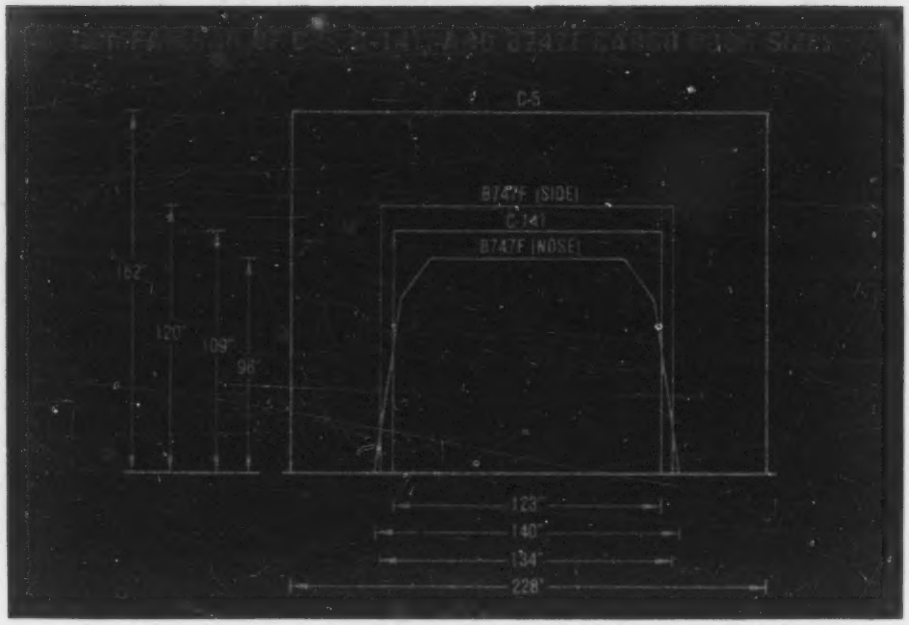
If you contrast that to a C–5, the features you will find in military aircraft you will see the high wing. The entrance for the crew and servicing of fuel and that type of thing is all at ground level. The floor is sufficiently low that the integral ramp carried on the airplane just drops and all these vehicles can literally drive aboard and in turn drive out. All those vehicles incidentally will make up one C–5 load.



To answer your question, Mr. Chairman, we do talk of cargo in these three categories. Definitions are simple. Bulk is anything that you can put on a standard loading pallet. Items small enough to go on a pallet mixed with other pieces on that pallet are classified as bulk.

We have a loading system built around the use of those pallets. If it is too big to fit on there, but is not so big that it can't go inside a C-141, then if falls in the oversize cargo category. If it is too big to go in the C-141, then by definition it is an outsize and the only airplane that can carry that cargo or combat equipment is the C-5.

You can just look and get an idea of the difference in dimensions. Although the 747 can carry heavier loads the C-5 has more volume associated with it. It is a bigger airplane.



Another way to look at it is how do you get this cargo through the door of the airplane. That is critical. Here we illustrate the door size of the 747 nose right here, this is the door size. The side door of the 747 is somewhat larger, but if you have equipment that is high and broad, it also often will turn out to be long and that means you can't go through that side door, you have to go through this nose door.

You see in terms of loadability, or in terms of door size, the 747 is about the same as the C-141. In fact a quick review of loading capability will tell us anything that can go on one of those airplanes can go on both; anything that can't go on one can't go on the other. In contrast the C-5 has a markedly larger entry door.

HEAVY EQUIPMENT CAPABILITY

	C-5B	B747F
Firepower:		
155 SP howitzer	[1] Yes	No.
DIVAD Gun	[1] Yes	No.
M-1/M-60 tank	[1] Yes	No.
IFV/CFV	[1] Yes	S/D.
Attack helicopter	[1] Yes	S/D.
Combat support:		
Combat eng vehicle	Yes	No.
Recovery vehicle	Yes	No.
Heavy equip transporter	Yes	No.
5-ton truck	Yes	S.
2½-ton truck	Yes	Yes.

[1] Can be loaded combat ready.

Notes.—Special clearances/handling; D—Disassembly.

To develop General Kelley's point a bit, this illustrates the heavy equipment capability of the two airplanes. This is firepower and combat support equipment vital to the delivery of that firepower. The C–5 can carry everything on here. Also it can carry the firepower items and combat support equipment in a manner so that it can roll out the door and be ready to be employed.

Looking first at the firepower items. You can see that the top three, and they are items of importance, cannot be carried on the 747 by any reasonable disassembly. The infantry and cavalry fighting vehicles can, but they require, first, a considerable degree of disassembly and, second, they require special clearance. That means we have to reduce our clearance criteria to less than six inches, which is something we can do, but it will require more time for loading and unloading.

When you start loading with those kind of tolerances you will do it differently; you will not be driving them, you will be winching. You also have a risk that you may do a little damage to the airplane. Attack helicopters can be carried in the same way.

These combat support vehicles are particularly critical to the application of armor and artillery. You see a number of them cannot be carried on anything, except the C–5. The five-ton truck is the largest item that we can put on a 747 and that is again with special-handling procedures.

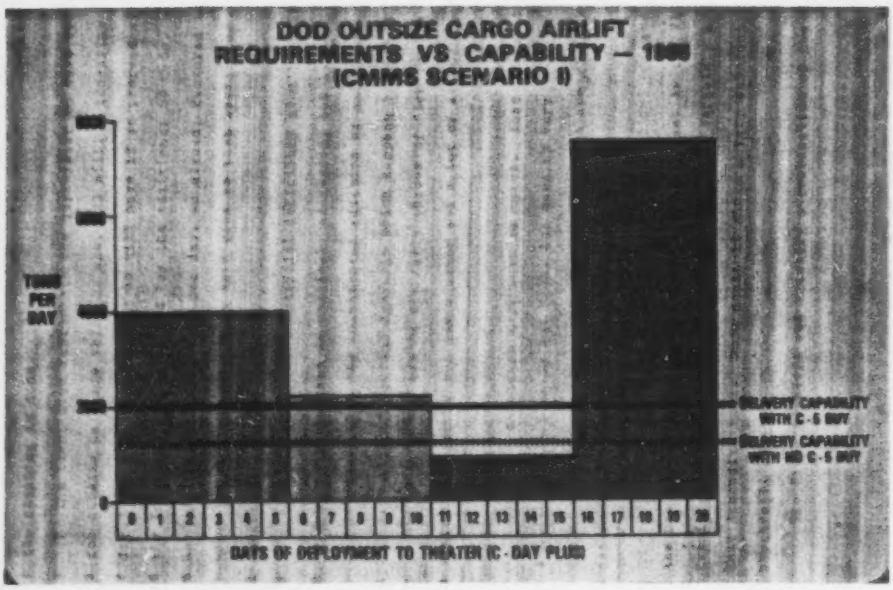
The two and a half-ton truck I showed you in the earlier picture is the size item that can be loaded without any disassembly or any special-handling provisions.

Disassembly of equipment is not a problem. You do that at the home base and there is time for it. It is the reassembly that gives you the problem. These are Army attack helicopters being loaded on a C–5, and as they go on and in turn come off they are combat ready. They have the fuel and armament coming right off that ramp and within a few minutes fly off to be deployed as intended.

Those can be loaded on the 747. In order to do that you have to remove first the rotor. Then you have to remove this rotor shaft which is integrated with the transmission, so that whole unit has to come out and be carried separately. Again the disassembly is not a great problem, but the reassembly is.

To reassemble that in a combat area is going to take on the order of four hours. It also requires equipment and people that would not normally be with that unit, specialized people with training and special tools and special mechanics who would not normally be there. So someone has to figure out how to get them to the reassembly site.

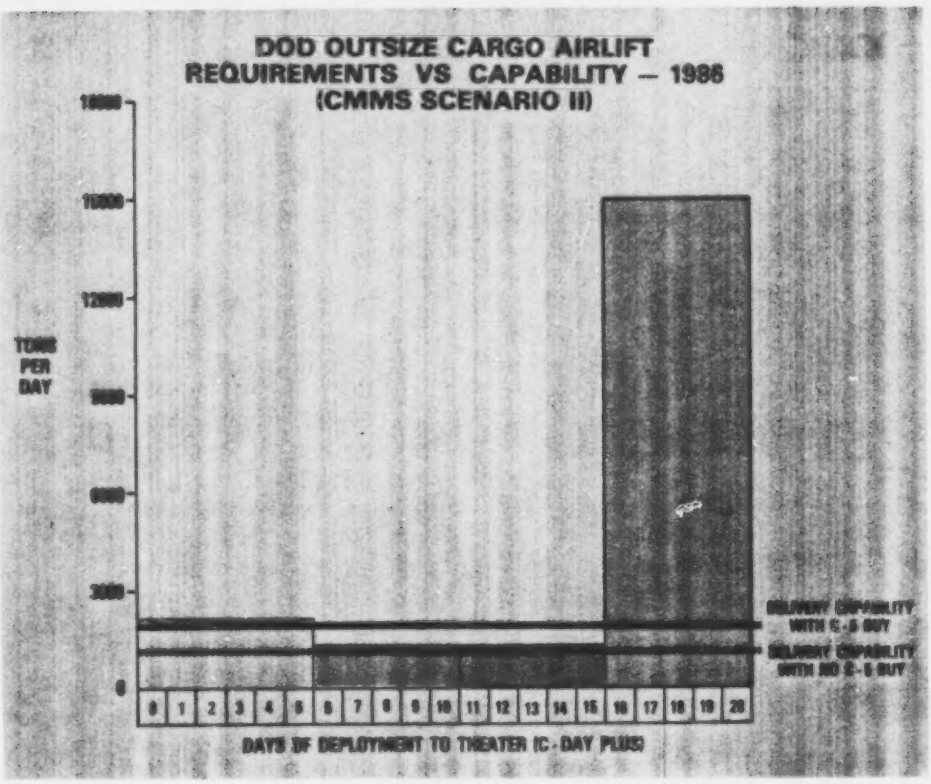
Infantry and cavalry fighting vehicles also require heavy cranes and time for assembly. So those are some of the limitations on carrying outsize cargo on 747s.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY — 1988
(CMMS SCENARIO I)
TONS PER DAY
DELIVERY CAPABILITY WITH C-5 BUY
DELIVERY CAPABILITY WITH NO C-5 BUY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

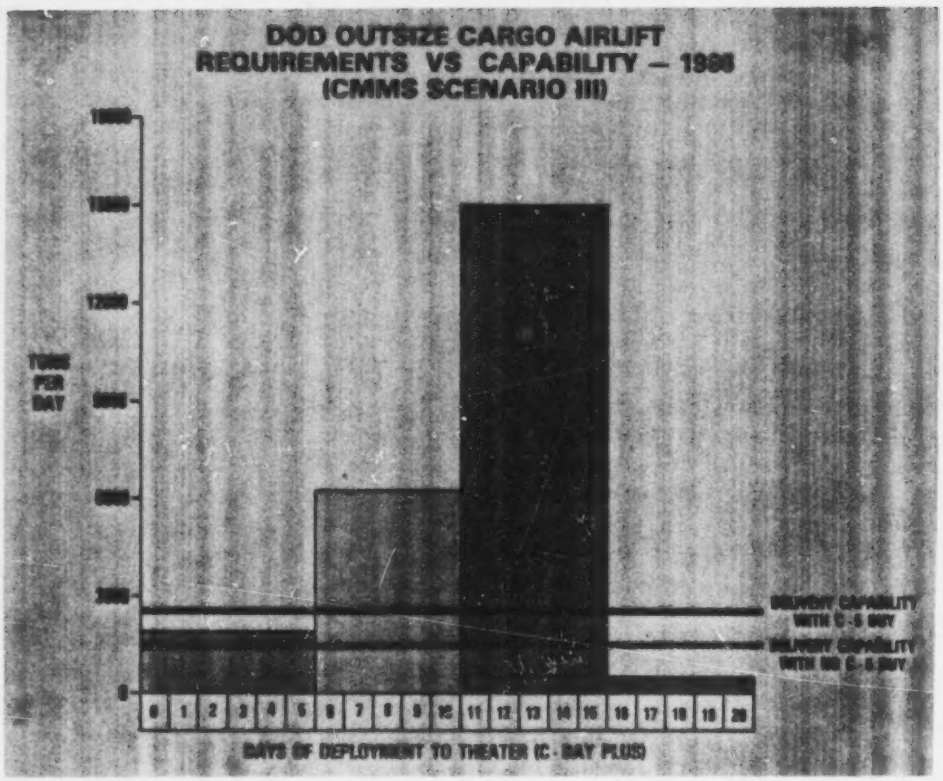
To return to the question of the requirements, I thought I would just quickly show what is calculated to be the outsize requirement in each of the four scenarios that were part of the congressionally mandated mobility study. They are shown in five day increments because that is the way the planning is done.

The lower line represents the capability we have today for outsize carriage which is about 12 million ton-miles a day. The high line is what we will have if we proceed with the President's program and buy the additional 50 C–5s. The horizontal axis shows ton miles per day, so already factored in there is the milage amount that goes to that particular scenario.

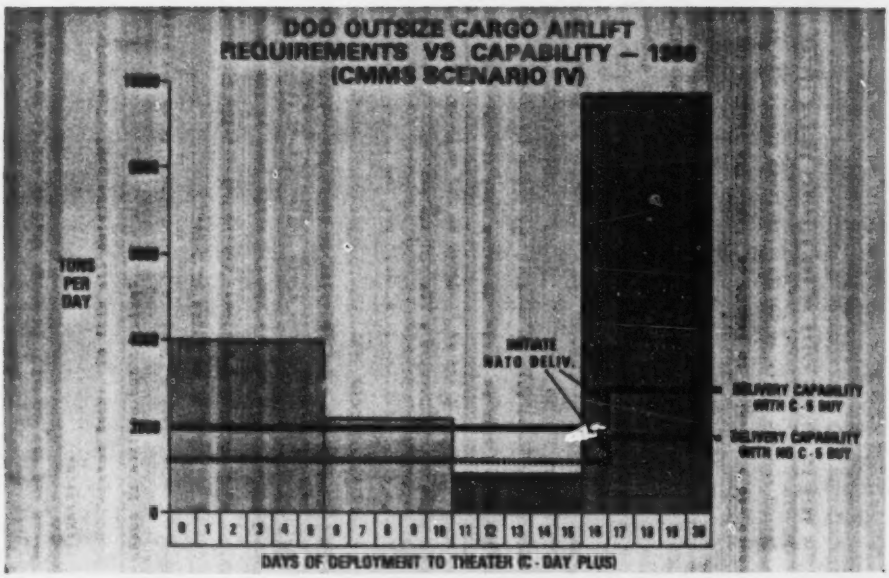
You see we have a substantial deficiency even in this scenario and one that is partially addressed, but by no means totally with the incremental addition of aircraft. The same with the second scenario which happens to be one in which the strategy was in the early phases of fighting to introduce a lot of Air Force units and a lot of airborne units.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY – 1986
(CMMS SCENARIO II)
TONS PER DAY
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

They don't require much outsize cargo. That is why the initial requirement is not high, but goes up very dramatically when mechanized and armored units are later introduced.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY — 1988
(CMMS SCENARIO III)
TONS PER DAY
DELIVERY CAPABILITY WITH C-5 BUY
DELIVERY CAPABILITY WITH NO C-5 BUY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

The third scenario is in my mind the critical one and the one toward which we should be working. That is the NATO reinforcement. That is an important task and certainly a most demanding task. Once again it shows a very substantial shortfall.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY – 1988
(CMMS SCENARIO IV)
TONS PER DAY
INITIATE RATO DELIV.
DELIVERY CAPABILITY WITH C-5 BUY
DELIVERY CAPABILITY WITH NO C-5 BUY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

The final scenario was actually a combination of the second and the third. It shows that we are in the same sort of pattern.

Senator NUNN. The whole chart is nothing but outsize?

General BURKE. Nothing but outsize. As we now stand and as we would if we added 50 C–5s.

In making their analysis Boeing Corp. provided information as to how the picture would look at the end of the 28-day period. It was their judgement that their solution and our solution would be about the same at the end of the 28th day.

We would disagree with that, but not in any major way. We would think probably a two to five-day edge is given by the Boeing approach that would not be produced by the methodologies and assumptions that we used. We think that is not important because we think that is clearly the wrong way to look at the problem.

That shows how you stand at the end of 28 days in a sterile condition in which nothing was happening, you are just in the process of delivering these equipments during that period of time. That is not the way war is fought.

The first units arrive, they are in combat, they need more and more units to reinforce them. The penalty for not getting there is that we continually loose ground, or we are not able to recover until we get adequate forces there.

BRIGADE DAYS IN THEATER TO SEALIFT EFFECTIVENESS DAY

	CMMS Scenarios Army And Marine Corps Plus 17 MTM/D		
	KC–10/CRAF/ C–5B	KC–10/CRAF/ B747F	Percent Difference
Scenario I	50	43	16
Scenario II	110	103	7
Scenario III	120	96	25
Scenario IV	138	103	35

A better way to look at it is over time. I think the proper measure for that is this one. Brigade days in theater to sealift-effectiveness day. That is the most critical time. Airlift still plays a big role after sealift gets there, but it is vital before sealift arrives.

How many brigades would you have had in for how many days during that period of time? Again we have the President's proposed increase and we show it for each of those scenarios and we show it with KC–10s, this one with C–5s, and this one with 747-equivalents.

When we do that we show that in each case the C–5 alternative is superior by these factors and I would again argue that the third is the most critical, NATO reinforcement, and one that we ought to try very hard to fill.

There is a 25 percent advantage compared with the 17 percent additional cost. I will quickly say that those numbers greatly understate the difference. This is merely the comparison between outsize capability and nonoutsize cargo capability.

I have not factored in, because we don't know how to factor in, the flexibility and responsiveness. We did not penalize the 747 for how they would get these heavy loads in there, how they were going to get extra people in to assemble, whether they could find airfields that are suitable. None of that is in there because we simply don't have a model to allow for these real world problems.

IS ADDITIONAL MILITARY VALUE OF C–5B WORTH ADDITIONAL COST?

Outsize capability and military design features important.
These characteristics available only in USAF-owned aircraft.
Non-outsize available from other [less expensive] sources: CRAF; Bulk loading of passenger aircraft; and foreign carriers.
CMMS recommended 25MTM/D: 10 MTM/D outsize; 15 MTM/D Nonoutsize
President's budget provides balanced buy of outsize and nonoutsize.

To conclude, I think as the chairman stated at the outset the basic question is: Is that additional military value worth the additional cost in money and time?

To summarize what I have tried to say, we think that the outsize cargo capability is vital because it does represent firepower and combat effectiveness.

We think those militarily designed features, ability to quickly load and unload, to operate in fields that are not well equipped, which you have not pre-planned for operation, allows flexibility and responsiveness. Importantly those characteristics, flexibility and responsiveness, are available to the country only through aircraft that we buy and own ourselves. These are features that will not be found in any commercial airplane. If we want that, we have to buy it.

On the other hand, the nonoutsize cargo capability is available in some measure from other sources and those are less costly sources than for us owning and operating those airplanes.

One, I think we should continue to aspire to do all we can in CRAF or programs of CRAF-like features in which the Government pays some cost and commercial airlines operate them in productive ways in peacetime.

Two, the second point is that there are ways we cannot plan for, but there are opportunities to improvise for nonoutsize cargo. You can take the many passenger aircraft that are available and put

plywood on the floor and do a certain amount of bulk loading. That is what the Israelis did in 1973. It is an inefficient time-consuming way, but it is much better than nothing.

Second, there are the opportunities, depending on the military and political circumstances, to take advantage of the foreign freighter fleets that are available. The non-U. S. freighter fleet in the Free World is somewat larger than the U.S. freighter fleet. Many of those airplanes are owned by our NATO allies.

Again we cannot precisely say which of those will be available to us. We are hopeful some might.

Finally to return to our study, CMMS, and our conclusion, it did recommend a 25 million ton-mile per day addition. The President's budget has followed that very closely.

CMMS, it is worth remembering, was done under the previous administration, but reviewed and approved by the current administration, so it has continuity.

The President's budget follows that guideline quite closely proceeding with a balanced program to buy 8 million ton-miles outsize and 9 million nonoutsize and plans in the future to increase that as time and money permit.

That concludes my presentation.

Chairman TOWER. Thank you, General Burke.

I will yield my time for questioning to the chairman of the Subcommittee on Sea Power and Force Projection, Senator Cohen.

Senator COHEN. Mr. Secretary, without getting into the issue of whether or not the Department of Defense has responded appropriately to Senator Jackson, let me say I was chairing the hearing the day he made the request in open session. When those questions were transferred remains to be proved by the committee I suppose, but last year during the House-Senate Armed Services Conference on the fiscal year 1982 DOD authorization bill, we adopted a report that said we wanted an airlift augmentation program and justification for such program. We felt so seriously about it that we even fenced moneys for R. & D. on the C–17 and even other programs until we got it.

To date we still don't have that report. The funds are still fenced. I would like, No. 1, to bring that to your attention that we intend to continue to fence those funds until such time as the report is forthcoming. I think that perhaps ties in with Senator Jackson's concern about not getting answers to his questions.

Now Senator Tower has indicated that a decision to buy C–5B aircraft is the more costly alternative.

Is the cost difference of the C–5B and other alternatives relatively small or is the need for outsize airlift so important in augmentation of our capability that the C–5B is necessary regardless of the cost differences?

Would you agree that either the cost difference is so minimal as to make a compelling case for the C–5 or the need for outsize is so important that we must go forward regardless of the cost implications?

Mr. CARLUCCI. I don't know that we need to express it in those extreme terms. General Burke has indicated our estimate of the cost differential. We do think there is a compelling need and we do not think the cost differential is so great as to be prohibitive.

Senator COHEN. So you see it more as a compromise between the two extremes? It is not cost per se that is driving the decision, it is not necessity per se for the outsize capability that is driving the decision, but a combining of the two?

Mr. CARLUCCI. We think this is a cost-effective solution that will give us outsize capability.

Senator COHEN. Did you have a chance to look at the Washington Post article by Morton Mintz which talks about an Air Force memorandum in which the conclusion is that the need for more cargo airplanes to haul the military requirements to world trouble spots may be met by the Boeing 747 at $6 billion less cost?

General Burke indicated the cost figures supplied by Boeing are understated by at least a third. Who is responsible for that memorandum? Would you comment on that?

Mr. CARLUCCI. My understanding, and I will ask General Allen to comment on it since it is an Air Force memorandum, is that it is a classified memorandum and it did look at only one scenario and only one measure of mission effectiveness and was not a scenario of greatest interest to us.

As I read the article itself, I have not had a chance to study the memo, it was just handed to me, but I think it made some of the points that Gen. Kelly Burke just made, that is, that the C-5A has certain unique advantages that are very important to the successful conduct of a military operation.

Senator COHEN. Before you comment on that, I want to call your attention to an unclassified document that I have—I think it is from MAC—in which the conclusion is that the C-5B will be a preferable option, but in paragraph 2 either the C-5B or the 747 can effectively help reduce the intertheater shortfall. Have you seen that?

Mr. CARLUCCI. I have seen that. It is true that General Burke has indicated that our CRAF program, our oversize and bulk programs do help to reduce the shortfall, but the critical element is outsize.

Senator COHEN. Is it outsize or is it money?

Mr. CARLUCCI. We think we have put together a mix with the C-5B, the KC-10, and the CRAF program that gives us all three, that gives us the additional bulk capability without driving us to excessive outsize capability.

Nonetheless, it gives us the outsize capability that is needed to meet what is approximately 30 to 40 percent of the requirements in almost any scenario.

Senator COHEN. General Allen, you indicate in your written statement that the fixed-price contract with Lockheed offers us confidence in the cost of production. Supplemental requests for fiscal 1982 includes $99.1 million in the C-5B program.

In the event we don't get a supplemental, what does that do to your cost projection for the C-5B contract?

General BURKE. It will introduce a delay and a very minor price difference.

Senator COHEN. You can go forward and execute those contracts?

General BURKE. Yes.

C-5 COST OVERRUNS

Senator COHEN. With respect to the cost of the C-5, you talk about having confidence in the price and say Boeing has understated its cost by one-third. The history of the C-5 has not exactly been immune from cost overruns as we know from past history. We are still paying some money to fix the wings and the engines on the C-5A. I don't know of any R. & D. funding that is included in the C-5 programs to reduce the operating cost of the C-5.

General ALLEN. There is no money for R. & D.

General BURKE. But there is money in there for engineering changes to reduce the cost of operation.

Senator COHEN. Give me a comparison of the operating cost of the C-5, 747, and C-17. That was not included in the charts.

General BURKE. The operating cost between the C-5 and the 747 is essentially the same. The difference is on the order of a few hundred million dollars less, $200 million less over a 20-year period. That is much closer than our ability to make those estimates.

Your earlier point I would like to clarify. We are not saying that we think Boeing gave us an underestimation. We are saying the Boeing number did not include all items that the Government will have to buy. That is to be expected in a contract proposal.

They tell us what the basic cost of the airplane is and we account for what we have to pay for spare parts and support and operating. There was no intent of Boeing to do anything misleading.

General ALLEN. The point by General Burke is true of the C-5. The C-5 proposal is not what was shown there, but a higher number which includes additional cost to the Government.

Senator COHEN. As I understand, this decision was finally driven, Mr. Secretary and General Kelley, by the increased funding requested by the President. Is that correct?

General Kelley, you have come before this committee on several occasions. You indicated you have failed, but you came before this committee and made a vigorous presentation for the C-X or C-17 as your most important requirement. Now we come here a year later and the C-17 has been eliminated because there has been additional funding for the C-5 program.

What if Congress does not provide that enhanced funding? Does that change your decision? Do you have to go back and reevaluate the C-X versus C-5B?

Mr. CARLUCCI. Let me say a word about the budget process because there seems to be an impression that this money suddenly fell out of the heavens one day.

Senator COHEN. We are trying to find out where that money is going to come from.

Mr. CARLUCCI. When we started the budget review process we had a general review of the strategy and we had all CINC's in. I was personally impressed by the fact that the CINC's emphasized strategic mobility as their highest priority.

Like anyone who had had some experience in budgeting throughout the process I withheld some funds because I know when you get down to the end of the process there are always urgent needs, there are always high priority items that need to be funded.

At the same time near the end of the budget process there were some changed economic assumptions on the part of OMB, which—because the way our budget had been worked out this year was extremely complex—gave us some additional flexibility.

In consultation with the Secretary I made the decision that the appropriate place to use this money was in additional strategic airlift. Mind you, it is money we obtained by keeping downward pressure on other requests. We killed some 83 programs in the 1983 budget in order to free up money for higher priority items.

Obviously if the Congress decides not to fund this we will have to go back and review all our priorities and see what we might want to do.

As we have indicated, the outsize capability is absolutely critical to the successful closure of military operations in all of the scenarios that we have set forth.

Senator COHEN. General Kelley, can you give us the benefit of your insight as to what will be needed? I think you stated today you disagreed with the conclusion reached in the Washington Post article this morning that the 77 C–5's currently in the inventory are sufficient to meet the rapid deployment force's needs. You rather vigorously denied that statement here this morning.

Is it your own opinion that we do not have enough C–5's to meet the needs of the rapid deployment force?

General KELLEY. What I mentioned is that we don't have enough airlift capable of carrying outsize cargo to meet the whole panoply of scenarios that one can envision.

When you say "don't have enough to lift the rapid deployment force," the answer has to be relative in that if you want me to not be very rapid and take an inordinate period of time to deploy the force, 77 C–5's can do it.

If you want me to provide a credible closure capability, in my professional opinion 77 C–5's do not do it.

Senator COHEN. My time is up. Thank you, Mr. Chairman.

Chairman TOWER. Senator Jackson.

Senator JACKSON. Just to follow up on Senator Nunn's question, General Kelley, how much of your airlift, Marine needs, are for delivery of outsize equipment? What percentage?

General KELLEY. Right now, sir, we are talking in terms, and this is today and this is growing significantly, we are talking in terms of four percent of what we would lift by air in support of major OPLANS would be outsize cargo.

Senator JACKSON. Thank you.

General Burke, you said that it takes 55 747's to equal 50 C–5's. However, Secretary Weinberger's letter to me on March 1 had a table with 40 747's providing the same capability as 50 C–5's.

How do you account for this discrepancy?

General BURKE. You can come up with different numbers depending on how you make the comparison.

Senator JACKSON. Ton-miles per day we are talking about.

General BURKE. If you do it in simple ton-miles per day and make the assumption every airplane will be fully loaded with ton-mile capacity, that will favor the 747 case. If you factor in volumetric requirements that will diminish.

It is difficult to do those in any abstract way. I think the best way to get at it is to develop a computer model using the loads, putting them on the airplanes as they are available over time and moving them. When Boeing did that using that methodology and using an assumed CMMS load—they didn't have access to the actual loading—their computer produced the answer of 48.

We did it with a similiar computer program, but using the actual CMMS load our computer produced 55. The cost data I showed was for the Boeing proposal, 48.

Senator JACKSON. General, and I say this to all the witnesses, it seems to me that the laity and the public want to know some fundamental answers to fundamental questions.

As to the floor area of a 747 versus the C–5 in square feet my figures show 33,240 for the 747 freighter versus 32,740 for the C–5. Is that correct?

General BURKE. I assume those numbers are correct. I don't have them in my memory, but I will accept them.

To that, one has to also consider the ceiling height and the width.

Senator JACKSON. I understand that. That gets into the outsize.

I come next to the cargo volume which has more importance.

General BURKE. This was another point. The floors are stressed differently and that is an inhibiting factor. Carrying cavalry and infantry fighting vehicles creates a problem in terms of the floor strength of the 747, which is something that could be solved and would need to be.

Senator JACKSON. But maximum payload, isn't it a fact that the 747 exceeds the C–5 by 136 tons to 98.5 tons?

These are the things that we ought to get a good look at. We can play numbers around the lot here. I don't know how the American public can make much sense out of this unless we get down to the fundamentals and then you decide how you are going to use it.

General BURKE. The 747 does have a higher payload capacity than the C–5.

Senator JACKSON. What is the range difference, nonstop, carrying 75 tons?

General BURKE. Again looking at it simply in tons of bulk cargo, the 747 will have a better range capability than the C–5.

Senator JACKSON. It is 5,600 nautical miles to 3,900, that is if you are flying from North America to the Middle East. The C–5 has to be refueled, is that not a fact?

General BURKE. If you are going to make nonstop as we did in 1973 that would require refueling.

Senator JACKSON. We had a problem, and this is why I am asking, we thought we were going to have a lot of refueling support. We ended up finally only in one place, the Azores. All of our aircraft were denied refueling in Europe, is that not a fact, during the Yom Kippur War?

General BURKE. Not totally. We were able to do refueling from Europe, but not land in Europe.

Senator JACKSON. Couldn't land. These are our NATO allies. You never know in this world how these things go, but it is a fact because I happened to remember some of the details of that eventful

week when it was only the Azores that was made available by Portugal for landing.

General BURKE. I would like to agree with your general proposition, the 747 is a superb freight carrying airlifter.

Senator JACKSON. How many cargo C–5's are used commercially?

General BURKE. None.

Senator JACKSON. None, is that right?

General BURKE. Yes, sir.

Senator JACKSON. Does that indicate something?

747 SUPERB FREIGHTER

General BURKE. It indicates the 747 is a superb commercial freighter.

Senator JACKSON. What is the speed of the 747 versus the C–5 and I am counting the rewing now which is another $1 billion, is it not, added on to the cost of the C–5's?

General BURKE. Yes.

Senator JACKSON. I have Mach 0.84 for the 747 versus Mach 0.77 for the C–5. That includes the rewing.

General BURKE. I have 0.8 instead of 0.77.

Senator JACKSON. But there is greater speed on the part of the 747, is that not correct?

General BURKE. Yes, slightly so.

Senator JACKSON. Now we are in a tight defense situation. Budgetwise it has all turned around a few months ago. If anyone has any doubts I suggest you watch what happens on the floor of the House and Senate on the budget. The cost of the C–5 is $118 million per copy. Boeing has given a fixed price at $58 million, is that not correct?

General BURKE. For the airplane only in 1981 dollars.

Senator JACKSON. And the same for the C–5?

General BURKE. No, sir.

Senator JACKSON. What is the difference?

General BURKE. The C–5 was 50 airplanes for $4.8 billion. Dividing 50 into $4.8 billion would be the number comparable, sir, to $58 million.

Senator JACKSON. Give us a dollar figure.

General BURKE. It is less than $100 million for the C–5B on apples to apples comparison.

Senator JACKSON. What is the difference in cost? It is budget this year, General. The news is going to be about the budget this year. We need some dollar answers.

General BURKE. The slide we showed earlier showed the difference in acquisition cost and showed the difference in the cost not only to buy but also to operate vehicles over 20 years and that seemed to me to be the most significant comparison.

Senator JACKSON. Let us get the capital investment. Then we will get into the cost in terms of the 20-year period. Here we are, we have the budget up and we don't know what the cost is.

Senator NUNN. Mr Chairman, why don't we put the chart back up there?

Senator JACKSON. I would like to get an answer without looking at a chart. I think they ought to know.

Senator NUNN. I think he should be permitted to refer to his notes.

General BURKE. Acquisition cost is $6.2 billion for the C–5, including spares and support and the comparable number for the 747 at 48 is $3.8 billion.

Senator JACKSON. $3.8 versus——

General BURKE. $6.2.

Senator JACKSON. That is a fundamental cost difference. Now, getting to the out years, the GAO made a study which related to the Yom Kippur War. My information is that the cost per ton-mile was 11 cents for the 747 versus 40 cents per ton-mile for the C–5. That is the GAO report.

Is that within range?

General BURKE. You really can't make a comparison of military and commercial ton-mile costs. Military aircraft are operated at the minimum peacetime rate necessary to sustain training of crews and commercial aircraft are flown at the maximum rate that the marketplace will support, so you will always get very different numbers.

If in fact the Air Force buys 747's and operates them at our peacetime utilization rates, the economies of scale that the airlines get when they are flying 11 hours a day will not be there.

Senator JACKSON. Surely there is sound data that you can give us—the 747's have been flying as freighters and as passenger aircraft and so on—what the real fuel efficiency differences are between the aircraft. I think the marketplace has indicated there must be quite a difference or they would not be buying them.

Can you supply that?

General BURKE. The C–5 actually burns less fuel than the 747.

Senator JACKSON. So you disagree with findings of the GAO study which has almost a 4 to 1 differential?

General BURKE. I would say that those statistics are in a context that does not illuminate any issue that we are addressing.

Senator JACKSON. Why can't we get that? On the 20-year life cycle cost for the C–5 and for the 747 figures what were the figures from the Aeronautical Systems Division.

General BURKE. The 20-year life cycle cost?

Senator JACKSON. Yes.

General BURKE. I am not sure. The numbers I presented were those that were considered in the Boeing proposals. The Aeronautical System Division, revised and refined by the Air Force.

[Additional information follows:]

It is not surprising that the B747 cost estimates presented at the hearing (which were the product of Air Force and OSD independent cost analyses) differ from those developed earlier by the Aeronautical Systems Division (ASD). The ASD cost estimate was of the Boeing proposal as presented by Boeing. The ASD estimate provided the basis for the subsequent estimates made by the Air Force and OSD.

These latter, more refined, estimates included additional required spare parts, support equipment, flying hours, and other support costs. This was done in exactly the same manner as had been followed in arriving at C–5B estimates (which had also resulted in a considerably higher price than had first been shown in the Lockheed proposal). Thus, the cost estimates presented at the hearing were as fair and even-handed as possible.

The most current Air Force estimates of B747 freighter and C–5B operating and support based on 1168 flying hours per PAA are:

20 YEAR O&S COSTS

[Fiscal year 1981 dollars in billions]

	C-5B	747
Number of PAA	44	48
POL	4.0	5.1
Unit personnel	2.0	2.2
Replenishment spares	.7	.6
Depot maintenance	1.2	1.3
System support/modification	.8	.6
Total	8.7	9.8

The fuel consumption figures used in the 20 year life cycle cost were 3294 gallons per flying hour for the C-5B and 3893 gallons per flying hour for the Boeing 747. The Air Force experience with the E-4 (747) is 4186 gallons per flying hour.

Senator JACKSON. My understanding is over the 20-year cycle the Aeronautical System Division came up with a figure for the C-5 of $9.2 billion versus $7.1 billion for the 747. These numbers were changed in the upper echelons. Is that correct?

General BURKE. I think the changes that took place in regard to operating cost, life cycle cost, were associated with two factors.

One, the Boeing proposals understated the amount of annual flying hours required by about 30 or 40 percent. When we put the 747 at the same rate that we propose to fly the C-5 and made that an evenhanded comparison, that added an increment.

The second correction was that in their cost models Boeing had allowed for the flight crew and maintenance personnel, but had not allowed for the base support personnel which is standard in our model and had been applied to the C-5.

So again in an evenhanded way that was applied. Those were the only changes that I am aware of that were made.

Senator JACKSON. You see what you are saying is included in the ASD analysis. You take a look at it if you want. It assumes 3,724 gallons per hour for the 747 versus 3,387 gallons per hour for the C-5, and still they come up with a figure of $9.2 billion for the 20-year life cycle for the C-5 and $7.1 for the 747.

You see, General, sitting up here it seems to me that in light of the budget problems we face you should get competitive bids all spelled out so we will know exactly and with a guarantee what they can perform in terms of operating cost and everything and require that they guarantee it. That is what they do for the airlines.

There is no reason why the Government should not get it. We are really in a tight budget pinch. It is clear to me that the dollar differentials here are really substantial.

Now, General Allen, Secretary Weinberger in his letter to me of yesterday—I don't know whether you have seen that—says that the scenario No. 1 can be met with 10 million tons per day of outsize capability.

Now you say we can't meet scenario No. 1 with 12 million tons per day by 64 C-5's committed to the job.

Can you tell me who is right?

General ALLEN. I am sorry, sir. Where did the number 64 come from?

Senator JACKSON. Sixty-four C-5's committed to the job. That is in scenario No. 1. I will read the paragraph. This arrived in my office last night. I did not see it until this morning. Dr. Smith got it. Here is the critical paragraph:

In determining the appropriate mix of outsize—oversize cargo on the CMMS one must remember that an additional five million tons per day of oversize bulk capability was assumed in the 1986 baseline using Table 10,1 of the CMMS. A minimum of ten million tons per day of outsize is acceptable for scenario one. In all other scenarios at least half of the additional airlift must have outsize capability to avoid constraint. Clearly the acquisition of outsize systems that also efficiently carry bulk and oversize cargo provide greater benefit in cargo movement and flexibility.

[Additional information follows:]

COMPETITIVE BIDS

The statement in Secretary Weinberger's letter, that a maximum of "10 MTM/D of outsize is acceptable for Scenario 1," was not meant to imply that all requirements would be met. It was intended to say that the 10 million ton miles per day of *additional* outsize capability, balanced with an *additional* 10 MTM/D of bulk/oversize capability *above the 1986 baseline* was an acceptable program level for that scenario considering costs and risks.

Senator JACKSON. My time is up. Can we get some answers to these questions.

Mr. Secretary, you know, with all due respect, I am pretty lenient on some things.

I hope, Mr. Chairman, that I can get answers to the questions that I submitted 3 weeks ago and the Senator from Maine submitted a year ago.

I don't know what is going on. You have a lot of people down there. You have a bigger budget than ever. Can I have that assurance? Can we have those answers up here on Monday? This matter is coming up on the floor.

Mr. CARLUCCI. Yes sir. My understanding is that we have answered a large portion of your questions.

Senator JACKSON. One-half, 40 of the 80 questions.

Mr. CARLUCCI. We will get the rest up.

Chairman TOWER. We would like to have those answers in a timely way.

Senator JACKSON. They can work over the weekend. Some of us work long hours, I know, you do. You have a staff there that can come up with these answers.

In all of the years I have served, 28 on this committee, this is the first time the Pentagon has stonewalled on questions asked by the committee, Mr. Chairman..

Mr. CARLUCCI. I can assure you there is no intention of stonewalling.

Senator JACKSON. What other inference does one draw from the fact that questions were submitted in an open hearing. They are there for 3 weeks and no answers, knowing that those questions were relevant for this hearing.

Mr CARLUCCI. In the 3-week period we did provide some answers to some of the questions. Some of the questions were complex questions and we are researching them.

Senator JACKSON. Sure, this is a complex problem.

Chairman TOWER. Senator Jackson, we will try to get those answers in a timely way. I think we had better move along.

[Additional information follows:]

All the inserts are being worked and will be delivered to the Senate Armed Services Committee by April 20.

Chairman TOWER. Senator Thurmond?

Senator THURMOND. Thank you, Mr. Chairman.

Mr. Secretary, I want to commend you and the Defense Department for the thorough study you have made of this question. It is one which has divided opinions. It seems that you have come up, in my opinion, with the right answer.

I support this decision for several reasons. The first is the C–5 is a known quantity that has proven itself. Its reliability and capability have been established. It is a large enough aircraft for the oversize hauls that will be needed when our troops are called to any part of the world.

I think we have to have more than these C–5's though, but I favor the C–5's now to go ahead in this program. You might have to get some surplus 747's and DC–10's to augment the lift that we will still be short. But right now I think you have made the right decision on this particular question.

I believe the United States delivered more equipment and supplies to Israel in 1 day with the C–5's than the Soviet Union delivered to Egypt, Syria, and Iraq in the previous 4 days.

The C–5 has a capability to operate on shorter runways. Is that correct?

Mr. CARLUCCI. That is correct.

SHORTER RUNWAY FOR C–5

Senator THURMOND. My information is that it can operate on a 4,100-foot runway wheras the 747 cannot. For instance, an example that comes to my mind today is the Falkland Islands that have only a 4,100-foot runway. I, of course, hope it will be unnecessary for any country's planes to use that runway. I give that as an example of the length of a runway. I am not giving any example as to where we expect to operate at all because I am sure we will not.

Then, too, the C–5 has the capability to unload itself. The 747, however, cannot be unloaded without special equipment. Is that correct?

Mr. CARLUCCI. That is correct, sir.

Senator THURMOND. So it appears to me that the wise thing to do at this time would be to go forward with a C–5 program.

Now I would like to ask you how important is the capability to operate on a short runway in the context of our strategic planning?

Mr. CARLUCCI. That capability is quite important. I think I would defer that question to General Allen and his colleagues.

General ALLEN. Yes, sir, it is very important. It is more than runway length. It is the adaptability of the airplane to the field for buildup that is required for terminal operations. The C–5 is a more flexible aircraft in operating in an austere field than the 747.

Senator THURMOND. You do consider this a very important factor?

General ALLEN. Yes, sir.

Senator THURMOND. Now are the logistics support systems in place around the world for the C–5 compatible with the 747 and if not what would be the cost to replace the logistics systems?

C–5 FACILITIES NOT COMPATIBLE WITH 747

General ALLEN. Our C–5 facilities that are placed around the world are not compatible with the 747. However, in many applications the existence of a worldwide capability to support 747's is of course one of their great strengths. The worldwide distribution of servicing and parts capability is clearly present for supporting the commercial operation.

Where the C–5 again will pay off I believe, Senator, is really more to your previous question. Where it is required to go unexpectedly into a field where one has not made the necessary prior arrangements, then the C–5 has a real advantage.

Senator THURMOND. I want to ask you this question as my last question. There has been some talk of politics entering into this matter and the civilians making the decisions.

How do you and the other military people feel about this matter? I want to ask you the direct question. Do you feel that we should go forward with this C–5 program at this time?

General ALLEN. Yes, sir, I do. We made this decision fully conscious of the military requirements. We clearly wanted an airplane that will do better in the longer term in the future, but the need is urgent, the need is now. The C–5 has a large portion of those military capabilities which we have to have and it is by far the best choice for us to make at this time.

Senator THURMOND. General Burke, I would like to ask you the same question. Are you influenced by civilian recommendations? How do you feel as a military man about this?

General BURKE. We addressed this question from the viewpoint of what was best for the country and what would provide the most military capability and with due consideration for the timing and I came down to the conclusion that the C–5/KC–10 proposal that is incorporated in the President's budget is the right course of action and I continue to believe that very emphatically.

Senator THURMOND. General Vessey, from the standpoint of having your troops move, and you will be the man who will be more interested I guess than any other in that particular aspect, how do you feel about this decision?

General VESSEY. On the issue at hand with the C–5 versus the 747, I want to say first that any addition to airlift is very important to us. We need the flexibility that the military airlift will give us in getting closer to the fight. You have to look at the proposition of throughput at the airport, not just what the airplane will carry, but how fast you can unload it and get to the fight and in what sort of condition the equipment is in.

The C–5 gives us a distinct advantage.

Senator THURMOND. Under those circumstances you feel the C–5 has an advantage here in that respect?

General VESSEY. Yes, sir.

Senator THURMOND. General Kelley, give us your opinion.

General KELLEY. You missed my opening statement, sir. I came out loud and clear. I want to reemphasize what I said in that statement: I don't particularly care what aircraft it is, but we need a significant improvement not only in airlift, but in the capability of carrying outsized combat equipment.

So, I support the C–5 decision.

Senator THURMOND. Even though this decision that has been reached by the Defense Department, we will still need more airlift, won't we?

General VESSEY. That is correct.

Senator THURMOND. Thank you, Mr. Chairman.

Chairman TOWER. Senator Nunn?

Senator NUNN. Thank you, Mr. Chairman.

General Burke, I gave up controlling leaks in Washington a long-time ago, but selected leaks that only quote one part of a particular memo and completely avoid the conclusions are a little bit beyond my capacity to cope with, particularly when the memo itself is classified.

So, I will ask you this question: Did you see the article in the Washington Post this morning headlined "Air Force Memo Says Boeing 747 May Meet Strategic Airlift Needs".

General BURKE. Yes, sir, I saw it.

Senator NUNN. Without violating its classification, can you tell us what the conclusions of that memo were that have been very meticulously, but I suppose in my view in a very distorted way, leaked in only selected portions? Can you give us conclusions of the memo?

General BURKE. I will read the concluding paragraph which says:

"The difference between the Boeing proposal and DOD program lies in the unique military utility and full range of loading flexibility provided by the C–5 aircraft. Also the DOD program addresses the airlift shortfall for the balanced outsize/oversize cargo procurement strategy."

Senator NUNN. Can you say one other thing at the top and again I want to leave it to you on its classification——

Senator JACKSON. If the Senator will yield, I have the memo. Everyone has it. It is all over the place. Just to clear the record, the memo is unclassified. This correspondence standing alone is unclassified?

General BURKE. That is correct.

Senator JACKSON. The Secretary said it was classified.

General BURKE. With attachments it is classified.

Senator JACKSON. But there are no attachments floating around that I have seen. Let us clarify the record in the interest of the truth because it is right on the record itself.

Senator NUNN. I think it is wonderful to put the whole thing out.

Senator JACKSON. I am just talking about classified material being leaked. It is in the paper. They got it out of the nonprofit group here in town. The writer so states and the document says it is unclassified. That is all I want to say.

CRAF PROGRAM MOST COST-EFFECTIVE

Senator NUNN. I think that is great. I think it is good to get it out.

Does the memo also conclude that if you go the 747 route that the CRAF program is the most cost-effective way to go rather than the purchase of the 747's?

General BURKE. That is not addressed in the memo that you and Senator Jackson are referring to. It was in the attachments. It did point out that CRAF is by far the cheapest way to go.

Senator NUNN. Page 3 of the memo has "secret" at the top and it has a note down at the bottom, so I am not sure, but in the part I deem to be unclassified, it does conclude that the CRAF is the most cost-effective way to go.

General BURKE. There is no doubt of it.

Senator COHEN. Mr. Chairman, if we are going to be engaged in selective quoting of documents, how can we discuss this issue, having the attachments classified and then the conclusions revealed here and not have the whole thing unclassified? It does not make any sense at all.

Chairman TOWER. Gentlemen, if you feel that you can't get at the matter adequately in an open session we will resolve this in a closed session.

Senator NUNN. It is very difficult to deal with that situation. I just want to clarify that it is very difficult to deal with that situation.

Moving on to another subject, General Kelley, have you studied the Middle East 1973 war in terms of airlift?

General KELLEY. I wouldn't go so far as to say I have studied it. I am fairly well aware of it, yes, sir.

MIDDLE EAST AIRLIFT NEEDS

Senator NUNN. Have you looked at what kind of outsize requirements were necessary in order to provide Israel with critically needed relief during their war?

General KELLEY. Yes, sir, I am well aware in a general sense because we did supply them with a considerable number of tanks, as you will recall, and by both intertheater and intratheater lift, I might add.

Senator NUNN. Was there a considerable amount of outsize military equipment that was transported by the C–5 aircraft during that war?

General KELLEY. Yes, indeed, there was. I don't have the number.

Senator NUNN. Could any other plane have furnished that?

General KELLEY. Certainly not, sir.

Senator NUNN. Do you have any opinion about what would have been the result had we not been able to deliver outsize military equipment during that war? What would have been the effect? I won't ask you for detailed analysis, but only your view.

General KELLEY. I think the ability of the Israelis to reconstitute their forces with the supplies and equipment, including outsize cargo, that came in was essential to their ultimate victory.

Senator NUNN. General Burke, Senator Jackson pointed out in his questioning that there are certain advantages to the 747 relating to I believe floor space, higher payload, range and speed.

Now you are in the airlift business. How do you weigh those factors in the overall airlift requirement, and how do you weigh the advantages of the C–5 against those 747 advantages?

General BURKE. First, I am an admirer of the 747. I have flown the airplane and have had some experience with it. It is a superb commercial freighter and is in wide and successful use throughout the world. If I were in the commercial airfreight business I would certainly look very closely at buying them.

It is not good at carrying outsize cargo because of the door size problem and other associated problems and it lacks the important military features, which are flexibility and responsiveness, the ability to operate at bases where we haven't previously prepared ourselves with pre-positioned equipment and to do so quickly and efficiently.

On that balance as a military airlifter the C–5 is clearly the winner in my judgment.

Senator NUNN. When you stack all those advantages up that does not outweigh the unique capability of the C–5?

General BURKE. No, sir.

Senator NUNN. For clarification, I think it would be helpful again to go back to the cost analysis, because some of the members weren't here. Could you put up that chart because this is the only cost analysis I am familiar with. There may be others.

General BURKE. Yes, sir.

Senator NUNN. As I see it, what you are saying is that this is the Boeing assumption, is that correct? You are using their computer model?

General BURKE. We derived the number 48. That is the Boeing assumption.

Senator NUNN. The Boeing assumption is 48 aircraft for the 747, 50 for the C–5. What is the difference in the acquisition cost of those two based on the Boeing number?

General BURKE. It is $2.6 billion.

Senator NUNN. In terms of using that chart and Boeing numbers and looking at the numbers versus the total acquisition cost if you could isolate for us how much is the C–5 cost per unit under that example and how much is the Boeing cost per unit under that example.

General BURKE. We will figure that and come back.

Senator NUNN. As I understand there is another computer model on this and is that Department of Defense or is it Air Force?

General BURKE. These numbers represent the view of both the Air Force and the OSD and application of both sets of computer models to it with the inputs from the Aeronautical System Division and others.

Senator NUNN. Your computer model shows instead of 48 aircraft to get essential airlift-equivalent you need 55 equivalent Boeing 747's?

General BURKE. Yes, sir.

Senator NUNN. If you use the 55 that is the Department of Defense computer model, how do you come out in difference in cost?

General BURKE. That reduces it $2 billion acquisition, $1 billion in total life cycle.

Senator NUNN. $2 billion in acquisition difference and $1 billion in total life cycle?

General BURKE. Yes, sir.

Senator NUNN. That is over 20 years?

General BURKE. Yes, sir.

Senator NUNN. What I would like you to do is take the 48 and the 50, which is the Boeing model and take the 50 versus the 55 which is your model, and give us the per-unit fiscal year 1982 difference in cost between those two aircraft.

General BURKE. We will do that very quickly, sir.

Senator NUNN. I will come back to that at the appropriate time, if you will give me the signal.

ARMY'S MECHANIZED DIVISION

General Vessey, what percentage of the Army's mechanized division is outsize?

General VESSEY. Forty-one percent of the equipment of the mechanized division is outsize.

Senator NUNN. Forty-one percent?

General VESSEY. Yes, sir.

Senator NUNN. That compares with the percent General Kelley gave a little while ago of 4 percent of the military load is outsize, is that right?

General VESSEY. Yes.

Senator NUNN. What percent of an engineer's brigade is outsize?

General VESSEY. I can't give you that figure off the top of my head, but it is a high percentage.

Senator NUNN. Could you furnish that for the record?

General VESSEY. I will, sir.

[The information follows:]

The outsize percentage for an engineer brigade is 45 percent. This figure represents a normal mix of units, because it must be understood that this organization is generally tailored to a specific mission.

Senator NUNN. Does 45 percent sound right?

General VESSEY. That is probably a good figure.

Senator NUNN. What percent of the armored division is outsize?

General VESSEY. Forty-four percent.

Senator NUNN. What percentage of an infantry division is outsize?

General VESSEY. Twenty-five percent.

Senator NUNN. What percent of motor transport brigade is outsize?

General VESSEY. I don't have that.

Senator NUNN. Does 60 percent sound correct?

General VESSEY. Yes.

Senator NUNN. Could you furnish that for the record?

General VESSEY. Yes.

[The information follows:]

Sixty percent of a motor transport brigade is outsize. This represents a normal mix of units. The percentage will vary because this organization is generally tailored to a specific mission.

CAVALRY BRIGADE

Senator NUNN. What percent of cavalry brigade is outsize?

General VESSEY. I don't have that, but it is very high particularly if you want to load to go into combat because it has a lot of helicopters. You can take more efficient loading of the helicopters and disassemble them, as General Burke pointed out, and reduce that percentage down to perhaps around 20 percent. If you load to go to combat then it runs higher.

Senator NUNN. Is the percent of the Army's needs in terms of this kind of outsize requirement going to go up or down over the next 10 years?

General VESSEY. It will go up over the next 10 years.

Senator NUNN. General Kelley, how about the Marine Corps?

General KELLEY. As we introduce the Maritime Pre-positioning Brigades, Senator, it will go up significantly.

C-5/747 COMPARISON AIRLIFT CAPACITY

Senator NUNN. General Vessey, can you give me an answer on this? The question really is whether these individual items that I will enumerate can be carried on a C-5? I will ask you if they can be carried on a C-5 and then I will ask on the 747.

The first one I will ask you is the combat engineer vehicle. Can that be carried on the C-5?

General VESSEY. Yes, sir.

Senator NUNN. Can it be carried on the 747?

General VESSEY. It cannot.

Senator NUNN. Can the CH-47 helicopter be carried in the C-5?

General VESSEY. It can.

Senator NUNN. Can it be carried on the 747?

General VESSEY. It cannot. Let me say on the 747, my figures are based on what General Burke has said about the 747 having about the same carrying capability as the C-141.

Senator NUNN. We want to make sure your answer is based on the Air Force assumption.

General VESSEY. My answer is based on our experience plus what General Burke says how the 747 compares to the C-141.

Senator NUNN. Can the 8-inch, self-propelled howitzers be carried on the C-5?

General VESSEY. It can.

Senator NUNN. Can it be carried on the 747?

General VESSEY. It cannot.

Senator NUNN. Can the 155-millimeter self-propelled howitzer be carried on the C-5?

General VESSEY. The same. It can on the C-5, but not on the 747.

Senator NUNN. Can the armored vehicle launch bridge be carried on the C-5?

General VESSEY. Same conditions.

Senator NUNN. How about the 747?

General VESSEY. No.

Senator NUNN. Can the Lance missile carrier be carried on the C-5?

General VESSEY. It can on the C–5, the C–141, and 747.

Senator NUNN. Can the M88 and armored cavalry vehicle be carried on the C–5?

General VESSEY. The M88 and armored cavalry vehicle will both go on a C–5. Only the armored cavalry vehicle will fit on the B–747.

Senator NUNN. Can the 12-ton supply van?

General VESSEY. The van will fit only on the C–5.

Senator NUNN. These others cannot even be disassembled, is that right?

General VESSEY. The others cannot be.

Senator NUNN. This is not a question of option of disassembly. They cannot be?

General VESSEY. That is right.

Senator NUNN. Can the division air defense gun be carried on the C–5?

General VESSEY. It can.

Senator NUNN. How about on the 747?

General VESSEY. It cannot.

Senator NUNN. Can the multiple launch rocket system be carried on the C–5?

General VESSEY. It can.

Senator NUNN. How about the 747?

General VESSEY. I am not sure.

Senator NUNN. Can the 5-ton truck with the 12-ton communication van be carried on the C–5?

General VESSEY. It can be.

Senator NUNN. How about the 747?

General VESSEY. With disassembly.

Senator NUNN. Can the truck tanker be carried on the C–5?

General VESSEY. It can.

Senator NUNN. How about the 747?

General VESSEY. I am not sure.

Senator NUNN. Would you furnish those you are not sure of for the record?

Can the water distribution truck be carried on the C–5?

General VESSEY. It can.

Senator NUNN. How about the 747?

General VESSEY. Again I am not sure.

[The information follows:]

These remarks address the loadability of specific items of equipment. The Multiple Launch Rocket System can be carried on the C5 but size and weight make it questionable for the 747. The Army possesses a variety of tank trucks and trailers. Some are 747 transportable, while others are not. The 1000 gallon water truck can be loaded on the 747.

Senator NUNN. How about the 2,500-gallon tank truck?

General VESSEY. The same. It can on the C–5 and I am not sure on the 747, whether it can be disassembled.

[The information follows:]

The 2,500 gallon tank truck can be disassembled and loaded aboard the 747.

Senator NUNN. How about the infantry fighting vehicle?

General VESSEY. It can be carried without disassembly on the C-5 and requires some disassembly and assembly on the C-141 and 747.

ASSEMBLING CAVALRY FIGHTING VEHICLE

Senator NUNN. Can you furnish for the record how long it will take each one of those to be disassembled and put back together?

General VESSEY. On the infantry fighting vehicle approximately 1 hour—72 minutes—to disassemble and about the same—74 minutes—to assemble.

Senator NUNN. Can the cavalry fighting vehicle——

General VESSEY. It is really the same vehicle.

Senator NUNN. That means with disassembly it can be?

General VESSEY. Yes.

Senator NUNN. Can you furnish for the record the amount of time on each one of those?

General VESSEY. That would be the same.

Senator NUNN. How about the M1 tank?

General VESSEY. It can be carried on the C-5 and cannot be carried on the 747.

Senator NUNN. How about the M60 tank?

General VESSEY. The same.

Senator NUNN. How about the 155-towed Howitzer?

General VESSEY. The 155-towed Howitzer can be carried on the C-5. I am not sure whether it can be carried on the 747. It seems to me it ought to be able to go on the 747.

[The information follows:]

The towed 155mm howitzer can be loaded and carried aboard the 747 without disassembly.

Senator NUNN. General Vessey, I will show you two printouts. I know you don't have time to go through these for the record. I know you will have to examine them, but these are computer printouts. It is my information that each one of these represents equipment that cannot be carried.

I will show you this one, and ask you for the record if you could respond in general. If there are exceptions to it let us know, if I am wrong in that assumption that they can't be. I keep reading and we keep talking about a tank and that is all. I certainly don't think the most efficient airlift is carrying tanks. I said once we needed to get a flying tank.

I do believe it is grossly misleading for people to keep talking about one or two items. Would you generally agree you are talking about hundreds of items that can only be carried by the C-5?

General VESSEY. That is correct.

[The information follows:]

Generally speaking, the data reflected on the computer printouts are accurate. They show a listing of outsize equipment associated with scenarios in the Congressionally Mandated Mobility Study. Also reflected are the type aircraft that accommodate such equipment.

OUTSIZED MARINE COMBAT EQUIPMENT

Senator NUNN. General Kelley, would you agree with that?

General KELLEY. I agree totally with that.

May I correct one thing for the record, Senator? Senator Jackson asked me about the outsized combat equipment requirements for the Marine Corps. I may have given you a misleading answer.

I was referring to the 4 percent, respectively, for those scenarios where we have an OPLAN that requires us to provide a fly-in echelon. The bulk of our equipment is aboard amphibious ships and in our near-term pre-positioning ships.

The reason we have kept this down to the 4 percent, purposely, is because of the paucity of aircraft capable of carrying outsized cargo.

Senator NUNN. The shortage of outsize capability is changing the Marine Corps' strategy?

General KELLEY. It certainly drives our ability to project combat power through the utilization of strategic airlift.

Senator NUNN. Have you had to reduce the number of helicopters you would use in combat because of shortage of outsize airlift?

General KELLEY. We have not, because, of course, we have the alternative of putting them aboard ships. In terms of moving the helicopters as part of our near-term pre-positioning ships, we have been very constrained and have, in fact, reduced the mix in the number of helicopters because of restrictions on outsized cargo aircraft.

Senator NUNN. What would be the effect of not having additional outsize, going strictly for a bulk-cargo kind of plane for the U.S. Marine Corps, and your ability to do your job as you understand it?

General KELLEY. The lack of that kind of capability could totally destroy what I think to be one of the most viable programs that has come along, certainly in a cost-effective way, in some decades; that is, the near-term pre-positioning and the maritime pre-positioning concept.

If you can't lift the outsized cargo that is necessary to support those, that is, cargo like helicopters that you can't pre-position, if you can't lift those, then your whole concept is rather meaningless.

Senator NUNN. Thank you.

I know Secretary Carlucci has to leave. I just have one question for him.

Mr. Secretary, in Secretary Weinberger's 1983 Annual Report to Congress he states that one of his major initiatives is—and I quote: "We must encourage our allies and friends to do more in the common defense." Going on, he says, in the mobility forces area, "We have reached agreement with our NATO allies to provide 49 long-range cargo aircraft for use in the European reinforcement."

It is my understanding that most of these 49 aircraft would be 747's. Am I correct in that?

Mr. CARLUCCI. I believe 15 are wide-bodied 747's and DC–10's and the rest are narrow-bodied aircraft.

Senator NUNN. Are you counting in these charts we have seen these 49 aircraft as being available, or are you not counting them?

Mr. CARLUCCI. Some of them may be.

General BURKE. I think they are in the CRAF, but I am not familiar with the letter.

Senator NUNN. Could you let us know about that?

I think Senator Jackson has made a convincing case that the 747 can carry a lot of cargo, but not the outsized cargo. I think we

agree with that. Also, the DC–10 can do the same thing. If we have 49 coming from NATO, available in emergency situations, it seems to me what we have is already the equivalent of what Boeing is proposing.

Mr. CARLUCCI. It is my understanding that those aircraft were taken into consideration under scenario 3 and 4 in CMM's.

Senator NUNN. I think we would like clarification of that for the record. Also, I think it would be very interesting to see what the cost to the United States is on that, if we are paying the cost for someone else.

[The information follows:]

ALLIES AND FRIENDS IN THE COMMON DEFENSE

A total of 49 long range, cargo capable aircraft have been committed by non-US NATO nations for use by the US in the event a decision is made to deploy forces to reinforce NATO. The program, called NATO Civil Air Augmentation (NATO CAA), is currently made up of the following aircraft:

Type:	*Number*
B–747	9
DC–10	6
DC–8	3
B–707	31
Total	49

These aircraft were assumed available for US use in any CMMS scenario which called for NATO reinforcement. The cost the US faces in this program would be incurred only if the aircraft were actually used. They would be paid for their services at an established rate.

Chairman TOWER. Senator Nunn, you have just tied Senator Jackson on time.

Senator NUNN. If I have tied, then I have reached my goal. [Laughter.]

Chairman TOWER. Senator Warner?

Senator WARNER. I will defer to my colleague, Senator Jepsen.

MEETING AIRLIFT REQUIREMENTS WITH CIVILIAN WIDE-BODIED AIRCRAFT

Senator JEPSEN. Do we need additional outsize lift capability to meet our airlift requirements, and can we meet those requirements through purchases of existing civilian wide-bodied aircraft?

Following up what Senator Nunn has been asking of the people who will use this, and for the scenarios, considering this equipment for the Middle East scenario outlined in the Congressionally Mandated Mobility Study, would such airfields with required length and built-up facilities be available in which the required number of 747's could operate?

Mr. CARLUCCI. I defer to General Allen on this.

General ALLEN. The Boeing study showed those airfields in the Middle East area which have been considered as acceptable for 747 contingency operations, and there was an adequate number of them.

In light of the comments we made earlier, without some preplanning those airfields would be quite difficult to operate from with 747's.

Senator JEPSEN. Would there be significant time delay in delivering equipment and supplies to the troops because the runways that can accommodate 747's are futher back from the battle area than those which can accommodate the C–5?

General ALLEN. The C–5 is more able to operate off fields in which one has not done advanced planning; therefore, you have a better chance to bring the goods to the troops that need them.

Senator JEPSEN. Thank you.

Chairman TOWER. Senator Warner.

Senator WARNER. Secretary Carlucci, as these facts unfold, it seems to me that the case on the technical facts is slightly in favor of the C–5 in terms of military mission. But what concerns me is the extent to which you, as a member of the President's Cabinet, took into consideration the advantages to the Nation's economy from a decision which would involve utilization of the existing 747's.

I understand there are some 12 available at one location in the United States, brand new, and the airlines cannot pay for them. Then there are several dozen more owned by domestic carriers in a retirement mode.

Now, as you well understand and appreciate, that segment of our economy is in somewhat of a depressed state at the moment; therefore, as the Senate examines the military advantages of the C–5 option against the 747 option, we have to take into consideration economic factors.

There are two: one, a budget saving with the 747 and, second, possible injection of cash very rapidly into a depressed segment of the Nation's economy, namely, the airline industry.

My question to you is: To what extent did you as a member of the President's Cabinet take those factors into consideration at the time you made your decision?

ACCOMPLISHING MILITARY MISSION

Mr. CARLUCCI. Senator Warner, our principal interest was the accomplishment of our military mission. We are not unmindful of the economic problems that the country faces, but we felt obliged to look for the most cost-effective solution that would enable us to accomplish our mission.

You have characterized the technical factors as tilting slightly in favor of the C–5. In our judgment they tilt far more than slightly in favor of the C–5. If we do not have that outsize capability, we are unable to meet most of the scenarios that we have laid out in the congressionally mandated mobility study within any reasonable timeframe.

Let me point out that we have indicated to Boeing and Senator Jackson that we keep an open mind on the 747 as regards CRAF enhancement, and there may well be some opportunities.

We have indicated that some 4 million ton-miles of our overall 17 million ton-mile program is for CRAF enhancement. We had some problems this year on CRAF bids. We want to come back at that next year, assuming the Congress gives us the resources, and certainly the Boeing 747 will be a very viable candidate for the CRAF enhancement program.

CRAF

Senator WARNER. On the subject of CRAF, Mr. Chairman, I would like to have included in the record a letter circulated to all members of the committee from the law firm of Zuckert, Scoutt & Rasenberger which deals with that issue.

[The letter follows:]

WASHINGTON, D.C., *April 15, 1982.*

Hon. JOHN G. TOWER,
Chairman, Committee on Armed Services,
Russell Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN:

In connection with the full Committee's hearings tomorrow on the fiscal year 1983 DOD Airlift Programs, Edward J. Daly, President and Chairman of the Board of World Airways, Inc., has asked us to supplement with this letter his recent telegram to you and other members of the Committee. As the Committee considers the fiscal year 1983 request for funds for the acquisition of new long-range cargo aircraft, we ask you not to overlook the likelihood that existing airlift capability may be lost in the absence of appropriate legislation. We urge you to provide the Department of Defense with the necessary legal authority to acquire cargo-capable, long-range, wide-bodied aircraft from the U.S. civil air carriers, which may otherwise be forced to dispose of them to foreign customers. Specifically, World Airways proposes to make available to the Department of Defense up to four cargo-capable 747 aircraft; two are available immediately, two on November 1, 1982. These aircraft are offered to DOD at current market prices for sale, lease or lease with purchase option.

All of these aircraft were acquired solely at World's cost; they fully meet DOD requirements. They are now committed to the Civil Reserve Air Fleet and are, of course, currently available to the Military in the event of emergency requirements. However, because these aircraft are surplus to World's foreseeable commercial needs, the Company faces the necessity of disposing of them. Unfortunately, the only prospective customers are foreign; and World is, in fact, now negotiating with foreign customers regarding these aircraft. We recognize, of course, that the acquisition of cargo capable 747 aircraft is only a partial, and perhaps interim, solution to the airlift shortfall, but it does offer these advantages: (1) a significant airlift capability could be made available immediately; (2) the equipment has a proven record of reliability; and (3) it is the most cost effective solution available.

Interestingly enough, these latter two points were documented in an April 1975 Report to Congress by the Comptroller General of the United States, which compared the C-5 and 747 airlift operations of the Military Airlift Command during the 1973 Middle East War. We have attached a copy of that Report to the original of this letter, but I should like to call to your attention the following paragraphs.

"A commercial air carrier under contract with MAC used a cargo-configured B-747 aircraft to replace, in part, the military capability removed from channel routes in the Pacific area because of the Israeli airlift. It was the first of this type of aircraft used on MAC channel routes and was tested to determine its suitability and productivity. The aircraft flew 12 round trips between California and the Philippines at a cost to MAC of about $1.4 million, which included a 25-percent profit for the carrier.

"On the segment of the route from California to Hawaii, the B-747 aircraft moved 1,045 tons of cargo at a cost to MAC of only 11 cents a ton-mile. The B-747 averaged a payload of 84 tons from Hawaii to Guam, a distance comparable to the critical leg of the Israeli airlift. This exceeded the average 73.2 tons moved by C-5s to Israel."

"Ton-mile costs for the C-5 and C-141 aircraft were 40 cents and 20 cents, respectively. At the same time, a commercial cargo-configured B-747 provided channel service at a ton-mile cost to MAC of only 11 cents. Although the performance of the B-747 aircraft may not be an applicable standard when applied to the Israeli airlift, it may be of value in determining future composition of the U.S. strategic airlift force."

In summary, the Comptroller General concluded:

"The aerial delivery of combat tanks and other outsize cargo by C-5s was an impressive use of airlift capability, and it is impossible to assess the psychological impact of demonstrating this capability. In our opinion, the relatively small quantities of outsize equipment delivered in this manner had no decisive effect on the

war's outcome. Except for the outsize cargo, the airlift could have been conducted without the C-5 aircraft. * * *

"The cargo-configured B-747, used to augment MAC's channel routes in the Pacific, demonstrated the ability to carry large payloads over long distances at low costs. Aircraft of this type, if needed, would be a valuable asset to the U.S. strategic airlift force in the event of a general war in Europe or Asia."

We are aware that between fiscal years 1978 and 1982 Congress appropriated $138.4 million for the so-called CRAF Enhancement Program, which was designed to make passenger wide-bodied aircraft cargo capable. We understand only $17.4 million of those funds have been spent in modifying one aircraft, and no additional modifications are planned. The remaining $121 million, which has as yet not been reprogramed, would be adequate to enable the Department of Defense to lease a substantial number of 747 aircraft which are already cargo capable.

We would appreciate your including this letter and the attached report in the transcript of any hearings your Committee prepares.

Respectfully submitted.

JERROLD SCOUTT, Jr.,
Counsel for World Airways, Inc.

ECONOMIC CONSIDERATIONS

Senator WARNER. I return again to the economic considerations. Did you, in fact, weigh those as part of the decision, or did you go strictly on the military requirements?

Mr. CARLUCCI. We went on the military requirements.

Senator QUAYLE. Therefore, it really falls to the responsibility of the Congress to factor in the economic considerations?

Mr. CARLUCCI. Yes, but we also felt that we went for the most cost-effective solution. We also pointed out—as you are well aware—that we have a substantial amount of money in our budget overall for aircraft purchases in general, so the military budget is assisting the aircraft industry to a very considerable extent.

Senator WARNER. I have a theory that our Nation's defense is no stronger than the foundation on which it rests, namely, the economy of the United States. While I share the President's long-term optimism, we do have an uncertain period here in the coming years.

It seems to me that the combination of the projected budget savings and the possibility of a rapid infusion of cash into a declining segment of our economy is something that we will have to take into consideration. I just want to clarify whether or not you weighed that and whether or not the responsibility falls entirely on our shoulders to weigh it?

Mr. CARLUCCI. We did not weigh that per se, but let me again point out, the mix that we developed falls a little bit short by our own standards in the outsize area. The CMMS study recommended 10 million ton-miles per day. Our own program has 8 million ton-miles per day. We have gone for additional bulk and oversize capability with the KC-10 program and the CRAF program, so we have tried to keep outsize down to a minimum.

Senator WARNER. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

Chairman TOWER. Senator Exon?

Senator EXON. Thank you, Mr. Chairman.

Mr. Secretary, as one who has been intimately involved with the current airlift question since its inception, and as one who stood

almost alone in opposition to the costly C–X program not too long ago, I salute your decision to put the C–X option behind us.

MEETING THE AIRLIFT NEEDS

The question before us now is how to proceed to meet the airlift needs which we all recognize must be improved. In my opinion, there has been over the years in the Pentagon far too little innovative employment of existing and proven domestic aircraft for military airlift. Likewise, the Pentagon planners over the years have been designing frontline weaponry with little attention to the important consideration as to how we are going to get this weaponry into the hands of the troops on the frontlines.

While I am generally sympathetic to your request for the C–5 purchase, serious questions have certainly been raised here and in the newspaper article in the Washington Post this morning.

I simply say that the supplier of these aircraft is of no concern to me whatsoever, or which State is going to get the dollar bonanza benefit is of very little concern. I think what we need to do is look at the economics of the situation and also our needs.

Let me emphasize, to lighten your load a little bit, that we do not intend to crank up our aircraft construction facilities in Nebraska. [Laughter.]

That should come as some help to you during this rather difficult time.

Specifically, what is your reaction to the letter that I think is before all of us from Senator Goldwater which, if it is not part of the record I would like to make a part of the record at this time, Mr. Chairman. Basically, Senator Goldwater says that what Senator Jackson should be proposing, and which I could endorse, would be the full purchase of the C–5's and then with any money available pick up surplus 747's or DC–10's to augment the lift that we will still be short.

Putting the question to you, let me say this: Can you elaborate a little bit more—you did partially in answer to the questions posed by Senator Warner—is there any possibility, for example, that we have enough C–5's now to meet most front line situations as far as outsize lift is concerned, or we might need some more C–5's and indeed over all we should have a mix of C–5's and some domestic widebodied jet aircraft to augment that? Would that not be an economic reality in the situation, or do you not agree?

Mr. CARLUCCI. I agree with the latter part of your statement.

First of all, the CMMS study demonstrates quite conclusively that the present number of C–5's is not enough to meet our outsize needs in the four scenarios.

We clearly need more outsize capability. Over all, that outsize capability should be on the order of 30 to 40 percent of our strategic airlift. In the first few days of any kind of an operation the outsize capability is in the range of 15 to 20 percent, so it is vitally important to get that outsize capability there early on.

At the same time, we have no desire to have more outsize aircraft than we actually need. We think the proper approach is a mix. We think the program that we have sent to the Congress in

the President's budget, consisting of the C–5, KC–10, and the CRAF enhancement, is a good program.

As General Burke indicated—I think it was before you came in, Senator Exon—if we were to go back and revisit the 747 issue, it would be a competitor against the DC–10 or the KC–10, and not against the C–5.

Senator EXON. Mr. Secretary, what about the situation if we did have a mix of C–5's and other domestic-type widebodied aircraft as part of our overall airlift situation, would that cause some problems with regard to the training of manpower, the maintenance of equipment and so forth, to have two airlift airplanes generally designed to carry equipment, whether it is outsize or not, over long distances?

Mr. CARLUCCI. I shouldn't think so. We wouldn't have that great a diversity where we would go to that kind of mix. In fact, we have that kind of mix right now. I think that is a manageable problem.

Senator EXON. Do we have such a mix at this time?

Mr. CARLUCCI. Yes, sir. We have KC–10's and we have C–5's and we have the CRAF program.

Senator EXON. Suppose we added 747's or DC–10's to that, it would not cause you any problems?

Mr. CARLUCCI. There would be some training problems but they would be manageable.

General ALLEN. They would be manageable. It would cause some difficulties but they would be manageable.

Senator EXON. I thank the Secretary and I thank the Chairman.

Chairman TOWER. I believe that brings us to the second round now. Senator Jackson?

Senator JACKSON. Mr. Secretary, I don't know of anyone who is disputing here the need for an outsize requirement and that the C–5 can carry that outsize equipment. I don't think that is, however, the real issue.

The real issue is how well can the 77 C–5's do the job? I think that is the issue.

I would go back to the Secretary's letter again. It is clear in Scenario No. 1 in connection with the congressionally mandated study that for the current outsize equipment the C–5 does the job. You mix it with the other aircraft.

I would also point out—as General Vessey said—when you are talking about percentage of outsize equipment for the Army division, the 48 percent, you do not mean to airlift all of that.

General VESSEY. It would depend on the situation.

Senator JACKSON. Sure. I just want the figures. The idea that 48 percent of the Army's requirements are going to have to be met by outsize equipment does not make too much sense. Likewise, when you look at the NATO scenarios—and I have looked at these scenarios—we will be in very, very bad shape if we are going to do most of the beefing up in NATO by carrying tanks over there. We had better have them there first; don't you agree with that?

General VESSEY. That is right; that is why we pre-position that equipment.

Senator JACKSON. Of course, NATO obviously is number one in our system of alliances, but clearly most of that will have to be pre-positioned.

I get down to this fundamental question that has been raised by Senator Exon and Senator Warner, Senator Cohen, and others and that is there is only so much money to go around. Clearly it gets down to a management problem: it gets down to a management problem. It is obvious to me when you talk about CRAF, if you look at the number of aircraft that we were talking about here, the CRAF availability is questionable.

You are surely familiar with the fact, Mr. Secretary, that there are six major airlines that are in deep trouble. Are you aware of that?

Mr. CARLUCCI. Yes, sir.

Senator JACKSON. When you say they are going to be available, we have a letter here, I think, from World Airways, that makes it clear—and they are supposed to be in the CRAF program—they are going to sell them overseas; I don't think some of these assumptions here make any sense at all—the Secretary's letter makes clear to me that with proper management you can deploy the 77 C–5's to carry the outsize equipment.

AIRLIFT OF 1973 MIDDLE EAST WAR

I looked at the Israeli example: 39 percent of the material was delivered before the ceasefire and the Israelis used eight of their commercial aircraft, meaning the 747's, to move 5,500 tons of cargo from onloading points in the United States.

The problem on the C–5 is that it cannot fly nonstop. In the Yom Kippur war it was the 747's that backed up the C–5's. Am I not correct? I am just quoting from a report to the Congress on airlift operations of the Military Airlift Command during the 1973 Middle East war. Most of the airlift occurred from October 14 to November 14 when the Command's aircraft delivered 22,497 short tons of material to Israel; however, only 39 percent of the material was delivered before the ceasefire agreement on October 24.

Also, Israeli used eight of its commercial aircraft to move 5,500 tons of cargo from onloading points in the United States. I know they don't have any C–5's.

Mr. CARLUCCI. Senator, nobody is saying that we can't move a substantial portion of our equipment by commercial aircraft or a variant thereof.

You referred to the Secretary's letter. We stipulated, of course, that under scenario No. 1 we were unable to meet the requirement with an additional 10 MTM/D of outsize.

Senator JACKSON. With the current number of C–5's?

Mr. CARLUCCI. No, sir; an additional 10MTM/D was enough for scenario 1. And that was only one of four scenarios and it was by far the most limited scenario.

Senator JACKSON. What about scenario No. 2?

Mr. CARLUCCI. Scenario No. 2, we could not. Scenario No. 3 and 4, we could not.

Senator JACKSON. I have it here—and this is unclassified, of course—this is for Southwest Asia?

Mr. CARLUCCI. In Southwest Asia we could not meet our requirements. General Burke indicated the difference in the next to last

chart he flashed on the board. He talked about brigade days in the theater.

Senator JACKSON. It is very clear if you look at the chart first, you have C plus 5 days outsize. It is 14 percent; is that right?

Mr. CARLUCCI. That is scenario No. 1?

Senator JACKSON. Yes. That involves 8,850 tons in 5 days. That is on the C plus 5. C plus 10 is 37,000 tons. Then C plus 15 is 39,880 tons.

What I am getting at here, Mr. Secretary, is that by proper management one can indeed reach the required objectives listed in those four scenarios. Now, you get into a problem on NATO but, honest to goodness, if we are going to depend on beefing up NATO with airlift, we are going to be in trouble.

Now, on scenario No. 2 the C plus 5 is 11,888 tons. C plus 10 is 18,480 tons, and C plus 15 is 24,740 tons. We need less outsize tons delivered by days 10 and 15 than in scenario No. 1.

Mr. CARLUCCI. I am not sure we are dealing with the same set of figures.

On scenario No. 2, outsize as a percentage of total requirements, C plus 5 is 15 percent, according to the figures I have.

Senator JACKSON. Yes, but 16 times the 74.3 tons gives you 11,888 tons, does it not?

Mr. CARLUCCI. The fact is that the CMMS study demonstrated that even with the 25 million ton-miles we do not meet our requirements, our overall requirements.

The study was quite clear in saying that 10 million ton-miles of that ought to be outsize. That was based on a careful analysis of the four scenarios. We can argue all day long about the data, but I think the full study speaks for itself.

Senator JACKSON. Mr. Chairman, I recall—and I had it in my statement—the CMMS overstated the additional amount of outsize aircraft required because its modeling technique did not perform calculations based upon utilization of outsize capable aircraft to haul primarily outsize equipment.

Mr. CARLUCCI. That is a very fundamental issue. You say that by better management we can accomplish this goal. I think General Burke has made the point several times that there is a vast difference between a commercial cargo operation and a war scenario. You don't always have the time or the capability to manage everything quite as carefully as you could in a commercial operation. You have to get that outsize cargo over there in a hurry, otherwise General Kelley's forces are going to be losing ground and you will lose part of your cargo.

Senator JACKSON. Mr. Secretary, all I want to say is that this document that is floating around unclassified contradicts what you are saying. That is, the analysis done under the direction of General John H. Shaud, who is Deputy Director of Plans for the Department of the Air Force.

Mr. CARLUCCI. We have four generals here who, I think, support what I am saying.

Senator JACKSON. Finally, let me ask you, isn't it a fact that the Department of the Army and the Department of the Air Force, based on Mr. Ambrose's very candid memorandum which appeared the day before yesterday in the paper, states as follows: "The deci-

sion"—referring to this decision on the C–5—"was made in spite of the recommendation of the Secretary of the Air Force, supported by the Army, to the contrary."

Mr. CARLUCCI. That is not correct.

Chairman TOWER. You mean Mr. Ambrose's statement is not correct?

Mr. CARLUCCI. He did not understand the process that took place. General Allen has described that process. The Air Force participated fully in the decision. The Army has indicated that it supports the decision.

Senator JACKSON. The one that was made, but I am saying the specific recommendation to go forward on the C–5. I think Mr. Ambrose is a very candid man.

Mr. CARLUCCI. He is a very able man as well. We have an awful lot of people in the Pentagon who do express views, but we don't make decisions by popular vote. We do the analysis.

Senator JACKSON. You are saying that the Air Force and the Army recommended the way it is up here now on airlift?

Mr. CARLUCCI. I am saying that the process was such that when I went back to the Air Force and indicated we would have a certain amount of funds and would they consult with their service colleagues and make decisions on what the optimal program was, they came back with the program you see before you.

General ALLEN. The Secretary of the Air Force and I specifically consulted and made this recommendation to Mr. Carlucci on this program as it is now before you. Immediately after making that recommendation, I informed the Chief of Staff of the Army that I had done so and explained to him the rationale and reasons behind it, knowing full well that the Army is very concerned about intratheater transport and the decision would bother him.

General Meyer consulted and I informed him in ample time for him to have the opportunity to protest that decision if he cared to do so.

Senator JACKSON. Isn't it a fact, on January 8 the Joint Chiefs of Staff recommended the C–17? Yes or no.

General ALLEN. I don't recall the date.

Senator JACKSON. Forgetting the date, the Joint Chiefs of Staff recommended the C–17?

General ALLEN. All of us here in uniform supported the C–17 consistently for several years because we had a longer term range of objectives which we really wanted to meet. We explained how we came to the decision to purchase those additional 50 C–5's.

Senator JACKSON. And your answer to my question, please? I will repeat it.

General ALLEN. I don't remember the date, sir.

Senator JACKSON. Let us set aside the date. True or false about the Joint Chiefs of Staff recommending the C–17?

General ALLEN. I honestly don't know. The military people before you did recommend the C–17 prior to reaching this decision on the C–5.

Senator JACKSON. True or false, did the individual Chiefs—you, as Air Force and General Meyer—recommend the C–17 as indicated by the letter here of Mr. Ambrose? You must know what you recommended.

General ALLEN. Prior to the decision which we have described, I and General Meyer clearly supported the acquisition of the C–17. We did so in testimony before the Congress many times.

Senator JACKSON. It is obvious that I have a few more questions, but I must leave. I would ask permission of the Chair—I don't know how much good it will do—to submit some additional questions that were not submitted here.

Chairman TOWER. The questions will be submitted, to be responded to for the record.

Senator NUNN. I want to ask my good friend, Scoop, before he leaves, if he is now advocating the C–17? [Laughter.]

Chairman TOWER. I don't think that question is relevant.

Senator JACKSON. I am just asking questions so that I can understand why it has taken 3 weeks and still we only have half of the interrogatories answered.

Chairman TOWER. Senator Cohen?

Senator COHEN. We are going to the floor next week, and we still don't have answers to a lot of questions yet. That is why I made the point that last year in our authorization conference report we requested the airlift augmentation plan and fenced in money for the C–17 and other aircraft. We still don't have it; we still don't have it a year later. That is one of the reasons we have questions which are up in the air.

I think the record will be sufficiently muddy as we take this to the floor, and we are going to encounter very serious problems on the Senate floor.

Mr. CARLUCCI. I am informed that report was delivered yesterday.

Senator JACKSON. How long was that from the time you made the request?

Senator COHEN. It was last year.

Senator JACKSON. They are going to be very good on rapid deployment. [Laughter.]

C–X

Senator COHEN. Really, General Kelley, I recall discussing the urgency for the C–X with you in past years. I have heard all the arguments, frankly, for the C–X, that we had to have aircraft that had intratheater capability, which the C–5 didn't have; we had to get into these austere fields, which the C–5 couldn't get into; that is why we had to have the C–X.

Now, all the arguments are used in favor of the C–5. It calls into question the reason why there was such an effort made to sell the C–X and suddenly all the attributes were transferred to the C–5.

Mr. CARLUCCI. May I comment on the C–X? As General Allen indicated, it would take us longer to have an IOC for the C–X. We all agree and I think General Kelley agreed that the requirements for additional strategic airlift is an urgent requirement.

At the same time, we are going to have to cope with the problem of obsolescence of the C–130's, C–141's, and the C–X—C–17—may well fit in a scenario in the outyears which makes a good deal of sense.

Senator COHEN. I don't disagree with that. I am saying that for 2 years, I heard all the arguments for the C–X: You have to have this and you have to go with this system, and now you are saying this is the way to go because we get an early IOC. During the hearings we had Mr. Boseman testify and I asked him the question: What is the IOC advantage of the C–5 over anything else we have, and he said at that time that we could make it operational in 2 to 3 years, and it is closer to 3 years, sooner than the C–17. Now you say it is 4 years.

This is 3 weeks ago he said 3 years. Now you say 4 years.

General BURKE. I said 4 years in January when we announced the decision. His 3 years would represent a theoretical possibility that would assume that Congress, in fiscal years 1981 and 1982 having denied us funds for the C–X, could now be persuaded to reverse itself and provide money in fiscal year 1982 for that purpose.

Senator COHEN. They denied the funds because you could not make a case to the committee saying what you wanted. No one could agree whether he wanted short legs, long legs, intratheater, intertheater. Congress said, "We will not give you $250 million with a blank check until you tell us what to do." That is why Congress held up.

Secretary Carlucci, in your statement you indicate an intention to preserve the option of deferring the C–17 for the late 1980's and 1990's. Why do you want to do that?

Mr. CARLUCCI. I just indicated we are going to have a problem of obsolescence of the C–130's and C–141's.

TWO SEPARATE TRANSPORT AIRCRAFT

Senator COHEN. Does it make any sense to go forward with two separate aircraft that can carry outsize.

Mr. CARLUCCI. I think so, because, first of all, the need for airlift right now is very compelling, as has been indicated again and again in this hearing. Second, this would give us more time to develop the C–X so that we would not have to introduce an unreasonable degree of concurrency.

Senator COHEN. You don't see there is a problem you will have difficulty getting support for two major strategic airlifts?

Mr. CARLUCCI. I think the funding profile would be such that we would pretty much complete this cycle before we would move into the production of the C–X. I don't see them as competing in the budget.

Senator COHEN. I opened my questions by trying to define the issue as a choice between polar alternatives, one whether the cost factor was so compelling or that the difference was so minimal, or rather, that you had to go forward with the C–5 because of its operational capability. In other words, whether should we decide it on cost versus mission.

You say it is somewhere in between. There has been a lot of talk about classified and unclassified documents. I would like to refer to a page—I don't understand how you do this, frankly, how do you have a document which is classified "Secret" on the front and then during the course of the report you have it marked "Unclassified"?

Mr. CARLUCCI. I don't know. I just noticed, myself, that this particular report we have been addressing——

Senator COHEN. This page is unclassified?

Mr. CARLUCCI. Standing alone, it is unclassified. I have been in the Government a number of years and I don't understand fully the classification yet.

Senator COHEN. I don't either.

Chairman TOWER. Nor do we.

Senator COHEN. Let me read from the unclassified aspect. It says, "Assuming that the Boeing alternative is less costly than the DOD program, the question becomes one of how much is it worth to have the flexibility which is inherent in the Air Force assumptions but denied in the Boeing assumption."

Really, this is an Air Force document. It becomes a question in terms of how much do you give for the flexibility. If it is a $6 billion difference, it is a tougher question; $4 billion it is less of a difficulty; a $2 billion difference, clearly you can go one way or the other. So, cost does become a very important factor where you discount Boeing's projection by a third. That makes a big difference.

If you don't discount it and you say a Boeing's alternative is less costly, then the case becomes less clear for reaching your decision, according to the Air Force document. Then it comes to the question of flexibility and the issue of disassembly.

It is my understanding the disassembly of cargo is common practice today, is it not? You do it now; Army does it and the Marines and the Air Force. It is quite consistent with standard operating procedure?

Mr. CARLUCCI. In a peacetime environment.

Senator COHEN. Even in a wartime environment it is still a common procedure?

Mr. CARLUCCI. You try to do it as little as possible. General Kelley wants his equipment to arrive there in fighting shape.

Senator COHEN. According to this document, it says, "As far as aerial port congestion, it is driven by the size of the aircraft, ground maneuverability and the daily sortie rates. This is much more important than the reassembly operation."

Would you agree with that?

Mr. CARLUCCI. Would you repeat that?

Senator COHEN. As far as the disassembly of cargo, disassembly and reassembly and aerial port congestion, as far as getting there, what you do with cargo once you get it there, is driven by the size of the aircraft, ground maneuverability and daily sortie rates. These are more important factors than the reassembly operation?

Mr. CARLUCCI. They are important factors. I assume assembly is an important consideration.

General ALLEN. He was addressing the sole question of the frequency at which you can handle the transport aircraft at the base. He was saying that is not driven by the disassembly time because you can move that off the ramp and take that elsewhere.

It is these other factors that determine how many aircraft you can get in during the day. That assembly still has to take place and still delays the utility of that equipment to the Army, so it is to them an important factor.

Senator COHEN. All I can say is that in the future, if we can possibly arrive at it, you have to furnish us at last with the kind of studies that have been mandated. Otherwise when the bill comes on the floor next week, we will be faced with much confusion.

It has been a year in coming, and I am going to the floor next week, trying to defend it.

Mr. CARLUCCI. The decision has been a long time in coming. I will be quite honest with you. I spent several months considering it. I had full briefings because I considered it a very serious decision, and we did not want to be rushed into it.

We are trying to provide all available data. I apologize if there are some questions that are still unanswered. I will get the answers up. We will also get to you a memo or letter which gives some detail on the cost estimates so that they can be used when the bill goes to the floor.

[The information follows:]

DISASSEMBLY OF CARGO

In the context of the subject of aerial port congestion, aircraft size, ground maneuverability and daily sortie rates are more important than reassembly operations for cargo which arrives in a "reduced" or "disassembled" configuration. This is true because aerial port congestion, from the Air Force standpoint, deals with the flow of aircraft through the phases of approach and landing, taxiing, parking, offloading, ground servicing and departure. Although reassembly operations may delay the fielding of a combat-ready force, the actual operations may be carried out at most airfields in areas adjacent to aircraft operating areas. Therefore, reassembly operations would not necessarily contribute to airfield congestion unless there is no suitable area, other than aircraft parking areas, in which to perform the reassembly.

Senator COHEN. Thank you very much, Mr. Secretary. I can assure you that your presence here today has been far more important than your presence at the White House.

Mr. CARLUCCI. Thank you.

Chairman TOWER. Senator Nunn?

Senator NUNN. Thank you, Mr. Chairman.

General Vessey, I have a couple of questions here on the closure time. Recognizing the exact numbers are classified, are there improvements in your ability to deploy forces to Southwest Asia significant as planned with the airlift program now posed by the President's budget?

General VESSEY. Yes, they have improved.

Senator NUNN. Is it possible to give us some indication in a nonclassified form of the order of magnitude of the improvement in terms of days, weeks or how much additional combat power?

General VESSEY. Yes, I think I can. I will have to do a little juggling with my classified numbers here, but generally I would say you can say it improves the additional combat power by a third across the scenarios.

Senator NUNN. Across all the scenarios by about one-third?

General VESSEY. Yes.

Senator NUNN. What about the same question for NATO, are you including that in your broad array of scenarios?

NATO REINFORCEMENT

General VESSEY. Yes. The NATO reinforcement, as you know, is a complex formula tied to our plans to pre-position a certain

number of division sets. The fact is that these division sets are not now complete so that exacerbates the outsize airlift problem until those sets are complete. But even after they are complete, there is still a large amount of outsize airlift required to transport the equipment because there are things that we will not be pre-positioning.

It does increase the NATO reinforcing capability by about one-third. I would like to refine those with tonnages.

Senator NUNN. Can you furnish for the record whatever you can in unclassified form on that?

General VESSEY. Yes.

[The information follows:]

General VESSEY. The President's airlift program will add approximately 2800 short tons per day in a NATO scenario.

Senator NUNN. On the question Senator Cohen raised about disassembly of equipment, can the Cobra attack helicopter fit in the 747 by being disassembled and reassembled on the other end?

General VESSEY. I believe it can.

Mr. CARLUCCI. General Burke can give some details.

Senator NUNN. How long does it take to first disassemble and reassemble it?

General BURKE. It is on the order of 3 to 4 hours for both, it is my understanding.

Senator NUNN. Total or each end?

General BURKE. Each. Of course, disassembly is not much of a problem; that is taking place at Fort Bragg or wherever you are leaving from. It is reassembly, when you are anxious to get the vehicle off the airfield and into service.

Senator NUNN. Do you have to test it after that?

General BURKE. You have to flight test it. You remove the rotor, rotor shaft and transmission; that requires a flight check to validate that it is airworthy.

Senator NUNN. Is that included in the 3 to 4 hours?

General BURKE. No.

Senator NUNN. How much time does that take, let us say, from the time that helicopter hits the ground in the C-141 or the 747 to reassemble it, flight test it and then take it out for combat use?

General BURKE. I think that would run between 4 to 5 hours. That depends on the availability of the equipment to do that and the trained personnel.

General KELLEY. The AH-1T, to put it in the 747 takes 10 men 3.5 hours to disassemble and 10 men 5.25 hours to reassemble.

Senator NUNN. If you are in any kind of areas where you are in danger of enemy aircraft attack or any kind of area that is not completely secure, what is the effect of that disassembly and reassembly?

General KELLEY. It is significant but it is even more than that. As an example, during our first Bright Star exercise that we had with the Rapid Deployment Joint Task Force, we brought in a number of helicopters.

Senator NUNN. I did not understand you.

General KELLEY. We brought in a number of helicopters aboard C-5's and C-141's. It is not only enemy action one has to contend

with but also, particularly if you are dealing with a Middle East scenario, you have windstorms and sandstorms, and you have an extremely difficult time putting together a helicopter under those kinds of conditions.

Senator NUNN. Of course, you would not have to do that if you had outsize loads?

General KELLEY. No, sir.

Senator NUNN. General Kelley, while I have you I will ask for your observations. You may have read these quotes and there were questions by Senator Jackson about the 1973 war and the 747's that Israel may have used.

I have a quote here from Anwar Sadat. I don't know whether you are familiar with it or not: "Colossal U.S. transport aircraft landed, loaded with tanks and sophisticated equipment. The U.S. was now taking part in the fighting by supplying Israel. I did not intend to fight the entire United States of America." That is a quote from his book, "In Search of Identity."

As you listen to that, "colossal U.S. transport aircraft landed, loaded with tanks and sophisticated equipment," what kind of aircraft do you believe him to be describing? I will help you if you don't know.

General KELLEY. You don't need to. Marines are slow learners, Senator, but I don't need any help. He is obviously describing a C-5, sir.

Senator NUNN. Golda Meir says—and I don't have the source of this quote, but I assume it is correct—"For generations to come, all will be told of the miracle of the immense planes from the U.S. bringing in material that meant life to our people." What plane do you think she was describing?

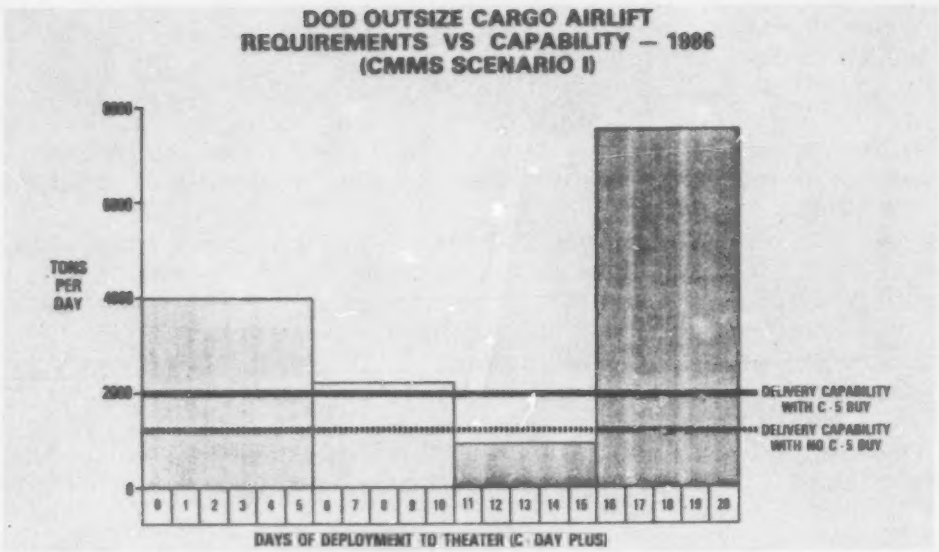
General KELLEY. I think it is one that is built by Lockheed in Georgia, sir.

Senator NUNN. Thank you. [Laughter.]

General Burke, could you put those bar graphs up. One of the essential questions that Senator Tower raised at the beginning of this hearing was the question of outsize. Senator Jackson raised it several times. I think the outsize load is the key to the hearing. Over and over again the point has been made by Senator Jackson that the hearing has not yet produced evidence of the need for outsize and that we can use our own 77 planes that we already have and so forth.

I just think this chart should be reemphasized. Could you go back through that for us?

General BURKE. There are four of them, one for each of the scenarios considered. I might say the CMMS was the 17th study on airlift that the Department of Defense has done in the last dozen years, none of which has failed to show there is a critical shortage of airlift and a particularly critical shortage of outsize airlift. It is the latest and most authoritative.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY – 1986
(CMMS SCENARIO I)
TONS PER DAY
8000
6000
4000
2000
0
DELIVERY CAPABILITY WITH C-5 BUY
DELIVERY CAPABILITY WITH NO C-5 BUY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

The way that computer model produces it, in 5-day blocks—and this is purely outsize cargo requirement—it shows that for 4, 5-day blocks the bottom horizontal line is our current capability and the upper line is what it would be if we added 8 million ton-miles of additional outsize capability, or 50 C–5's.

It shows this is scenario 1—that clearly there is a deficiency in outsize cargo capability there.

Senator NUNN. Where is the deficiency the greatest? As I see, at the bottom you have from day zero to day 20. You have the first 20 days here; does that mean sealift won't be there in the first 20 days?

General BURKE. The first ships should arrive on the 18th day and start unloading.

Senator NUNN. This chart is based on the sealift premise. You are trying to measure what you have to get there during the period of time when sealift is not yet available?

General BURKE. It is just beginning to arrive.

Senator NUNN. Can you tell us what happens in the first 5 days? What is the deficiency from our present situation in outsize capability during the first 5 days?

General BURKE. We are failing to move a great deal of combat firepower, a major factor, over half of the items that you and General Kelley discussed. Those are combat equipments.

Senator NUNN. What is the shortfall in outsize capability now, as we now have it, during the first 5 days? What is the shortfall?

General BURKE. It is on the order of 2,500 tons per day.

Senator NUNN. What do the next 5 days show?

General BURKE. There is a decline, but still there is approximately a 400-ton shortfall there for the first 10 days. Then for the next 5 days, obviously, by that period you would have acquired a great deal of this backlog from here.

Senator NUNN. In other words, by the time that second 5 days comes about your blue chart has been covered; you have made up the deficiency?

General BURKE. The way it would really work, if you are operating at today's level you would carry this amount in the first 5 days, so this amount then goes over to the next 5 days [indicating on chart]. So you would really have that requirement; you would do this much.

Senator NUNN. What you are saying is, each one of these is incremental; you still have during the second 5 days the shortfall that was in the first 5 days?

General BURKE. Yes, sir, that is the way you would actually do it.

Senator NUNN. You are showing the incremental deficiency by this chart?

General BURKE. Yes, sir.

Senator NUNN. Could you prepare another chart for us for the record that would show the cumulative deficiency?

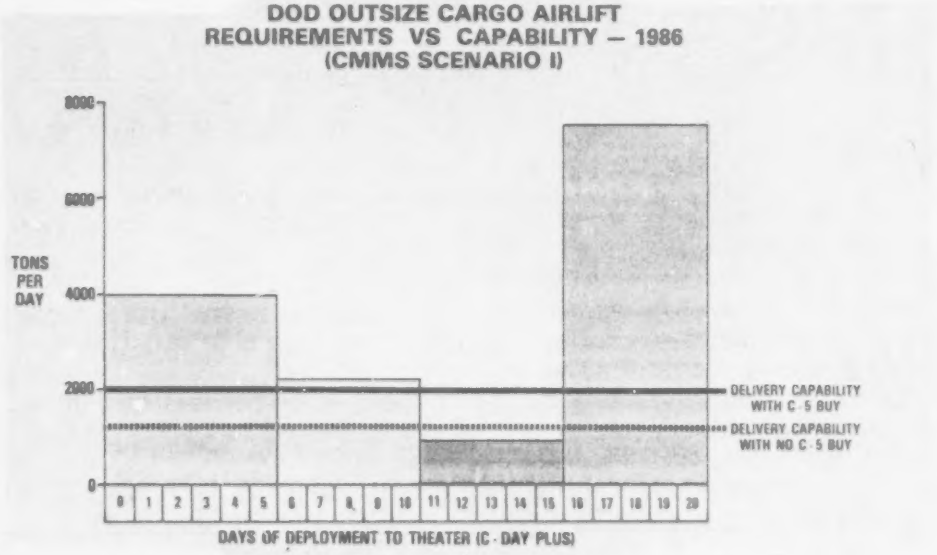
General BURKE. Yes, sir.

[The information follows:]

CUMULATIVE DEFICIENCY

Attached is a plot of the cumulative outsize demand for Scenario III versus the cumulative capability of both the current and the proposed force of C-5s. The chart also contains a demand curve if one assumes that half of the day 6 through day 15 demand were to be pre-positioned.

In both cases, we are still short of the demand, although the proposed program nearly meets the requirement in the case of assumed additional pre-positioning.


DOD OUTSIZE CARGO AIRLIFT
REQUIREMENTS VS CAPABILITY — 1986
(CMMS SCENARIO I)
8000
6000
TONS PER DAY
4000
2000
0
DELIVERY CAPABILITY WITH C-5 BUY
DELIVERY CAPABILITY WITH NO C-5 BUY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DAYS OF DEPLOYMENT TO THEATER (C-DAY PLUS)

Senator NUNN. I thought that is what this was.

General BURKE. It is incremental.

Senator NUNN. What is the third 5 days? You were saying during the third 5 days you don't add to your deficiency; is that right?

General BURKE. Actually, when you get to this day you are operating under these circumstances; you would have not moved this amount of cargo, nor this amount of cargo, and that would still be a backlog in those days.

Senator NUNN. What about the last 5 days, where the green is?

General BURKE. The last 5 days, of course, the backlog is very, very heavy. On the other hand, you are now getting in the range where sealift is coming in, if you have anything left, if you have any territory left and docks for the ships to tie up to.

Senator NUNN. General Kelley, can you tell us, as former commander of the RDF, what this chart means in terms of men on the field waiting for the equipment? What does it mean to you and your capabilities?

General KELLEY. It is extremely hard to quantify based on that alone, sir. What it means is that if you happen to have that one item of outsize combat equipment that is essential for that particular unit that is on the field and it can't get there, then that unit cannot perform its mission.

Senator NUNN. General Vessey, do you want to comment on that?

General VESSEY. I would go back to those questions you asked me. I think they would help illuminate that.

In general, unclassified terms, for example, in the second scenario, this program will move the same combat power in one-third less time.

In the second scenario the same combat power would be moved in about 40 percent less time.

For the NATO scenario, my off-the-top number was not particularly good. If all the defense programs in the budget—that is, additions to Army equipment which will also increase the amount of equipment pre-positioned—if all those are done, this airlift package here, plus the other parts of the President's budget, will mean that we will be able to reinforce 4 times the force in the first 10 days.

Senator NUNN. Four times the total airlift package?

General VESSEY. Plus the other things that are in the defense budget.

Senator NUNN. It increases our overall capability by 40 percent?

General VESSEY. That is correct.

Senator NUNN. Over what timeframe?

General VESSEY. Ten days.

Senator NUNN. Over what timeframe of procurement?

General VESSEY. 1988.

Senator NUNN. That is the span of the whole acquisition of the C–5. Does that include the CRAF program, too?

General VESSEY. Yes, that does.

C–5/747 COST COMPARISON

Senator NUNN. General Burke, have you had a chance to get the cost figures together? I am trying to get to the bottom of what Senator Jackson has asked. You have a chart there that shows

Boeing's assumption, showing 48 747's versus C–5's. I believe it was in constant 1982 dollars. We have the total amount but not the per-unit cost. Can you give us, first on the Boeing assumption, the unit cost in 1982 dollars, C–5 and 747?

General BURKE. Yes, sir, I have that now. The 50 C–5's would cost $128 million apiece.

Senator NUNN. In 1982 dollars?

General BURKE. Yes, with their spares and support.

The 747 would be $79 million apiece for either 48 or 55.

Senator NUNN. Does that include all the elements?

General BURKE. Yes.

Senator NUNN. That is an apples-and-apples comparison. You are talking $128 million per unit versus $79 million per unit?

General BURKE. Yes, sir.

Senator NUNN. Could you tell us then the same kind of figures for the 55?

General BURKE. It would be the same.

Senator NUNN. It would be the same per unit on that?

General BURKE. Yes.

Senator NUNN. Could you again repeat the total dollars in the 48 Boeing assumption or the Department of Defense assumption, 55, total dollars and total difference?

General BURKE. For acquisition in 1982 dollars, 50 C–5's is $6.4 billion; 48 747's is $3.8 billion; 55 747's is $4.4 billion.

Senator NUNN. Can you give me the difference, first between the 48 that Boeing has proposed and the C–5?

General BURKE. It is $2.6 billion.

Senator NUNN. $2.6 billion difference between the C–5 acquisition and the 48 that Boeing has proposed?

General BURKE. Yes, sir.

Senator NUNN. What is the life cycle difference?

General BURKE. The life cycle, again looking first at 48 versus 50, is $16 billion for C–5's, $13.2 billion for the 747's. That is 48 747's and that is a difference of $2.8 billion for 20-year life cycle cost.

Senator NUNN. Give me that for 50 versus the 55, in other words, the difference between the 55 acquisition cost, the 55 747's and 50 C–5's.

General BURKE. The difference is $2.0 billion in acquisition. In life cycle, $1.0 billion.

Senator NUNN. Over the 20-year period the difference between what the Pentagon and the Department of Defense needs, this is the Boeing 747, if you go that way, and the acquisition of the 50 C–5's in the President's program, the total difference in life cycle 20-year cost is $1 billion?

General BURKE. Yes, sir, accepting that 55 is the correct number.

Senator NUNN. Which is the Department of Defense analysis?

General BURKE. Yes.

Senator NUNN. I agree with what Senator Cohen and others have said. We have to weigh the overall economic effect of this on the budget to determine priorities. My question to you, Secretary Carlucci, is: "When you look at the difference between acquisition cost of $2 billion and life cycle cost of $1 billion on procuring 55 747's, is there a priority that warrants that additional expenditure?

Does the outsize airlift priority warrant that kind of money difference?

Mr. CARLUCCI. In my judgment, there is no doubt about it; it does warrant the difference.

Senator NUNN. General Kelley:

General KELLEY. An unequivocal yes, it does warrant the difference.

C–5 WORTH PRICE DIFFERENCE

Senator NUNN. As far as the Marine Corps' priorities, your personal view, say from 1 to 10, where do you put this additional cost in getting C–5's outsize versus 747's? How do you list that, 1 to 10, 10 being the highest?

General KELLEY. If you are not asking me to pit this against amphibious ships and a few other things that I have a strong interest in, too, on a scale of aircraft, 1 to 10, I would put it on top.

Chairman TOWER. It does not come out of his budget.

Senator NUNN. General Vessey, is it worth the difference?

General VESSEY. Reluctantly, I say yes, it is. I would like to be able to use the money that is the difference between the two proposals for something else, but I say reluctantly that the C–5 is worth the difference. It is essential to be able to carry out the plans we have.

Senator NUNN. General Allen?

General ALLEN. Yes, sir; it is worth the difference.

Senator NUNN. General Burke?

General BURKE. Yes, sir.

Senator NUNN. Even though it comes out of your budget?

General BURKE. It does come out of our budget and we don't have outsize cargo, but the country needs it.

Senator NUNN. Thank you, Mr. Chairman.

Chairman TOWER. Senator Exon is next.

Senator EXON. Thank you, Mr. Chairman.

General Vessey, I want to welcome you here. I haven't asked you a lot of questions. I am sure you will be back in front of us on many occasions.

I do want to ask one question. So that witnesses may not be misled, I do have some parochial interest and consideration also. I look at that horror list that Senator Nunn came out with, that computer printout. I want to make sure, would the Viper, which as you know is a shoulder-fired antitank weapon, fit in the C–5 or the 747?

General VESSEY. That will fit in anything, Senator.

Senator EXON. That is primarily manufactured in Nebraska.

General VESSEY. I want to tell you it is very important for our defense, too.

Senator EXON. Mr. Secretary, two questions: I don't believe you answered my previous question with regard to Senator Goldwater's suggestion that basically we go ahead and purchase 50 C–5's and then when any money is available pick up surplus 747's or DC–10's.

Are you considering that option or do you think that is something we should consider?

Mr. CARLUCCI. In a sense that is exactly what we are doing. We want to purchase the C–5's. We want to then go ahead and purchase DC–10's. It is very compatible with our program as I understand it.

This is the first time I have seen his letter. That is virtually what we are doing.

CRAF PROGRAM

Senator EXON. One last question: We talked quite a little about the CRAF program. I understand that the CRAF program is very important. I am not sure I understand how the CRAF program would fit into an emergency rapid deployment force. I believe most of that information is unclassifed, but how quickly could we bring CRAF aircraft into the system if we had to meet some kind of emergency that would require the deployment of the RDF?

General ALLEN. To fully mobilize CRAF requires a declaration by the President of a national emergency. Following that, 48 hours and they will be in full operation. There are other stages but at the level we are talking about it is 4 days.

Senator EXON. Thank you, gentlemen.

Chairman TOWER. Mr. Secretary, in discussing the Department's airlift program, your statement indicates that—and I quote—"Alternatives such as the purchase and conversion of used widebodied commercial aircraft are also being examined." What alternatives are being examined?

Mr. CARLUCCI. We indicated that we wanted to continue to study the 747 proposal, particularly in conjunction with CRAF.

Chairman TOWER. The general agreement is that the CRAF enhancement program is the most cost-effective alternative for augmentation of airlift capability. I am curious to know, given this fact, why the CRAF enhancement program has received such a low priority within the Department over the past several years?

Mr. CARLUCCI. I can't speak for the last several years. We certainly attach a high priority to it. At the same time it has to be cost effective. We have had some problems with rapid cost escalation on the bids we have received most recently on CRAF and we will have to sort that out. It is cost effective if it is down in the neighborhood of 10 or 15 percent or so of the life-cycle cost of the new aircraft. When it gets to be half of the life-cycle cost of the new aircraft, it may no longer be cost effective.

Chairman TOWER. Do any of my colleagues have additional questions?

Senator COHEN. Just one point of clarification:

Mr. Secretary, I was advised by counsel that the study arrived at 8:02 this morning in Senator Tower's office and at 10 o'clock here, so it is the difference of a day.

I thought that you said something to Senator Jackson in response to the letter he received from Secretary Weinberger that the outsize cargo requirement could be met for Scenario One. The graph that we saw seemed to contradict that?

Mr. CARLUCCI. Yes. I think I should stand corrected on that.

General BURKE. You mean in time and the way it was done in the Boeing analysis, at that time it became 28 days. The question is whether that is an acceptable period of time.

Mr. CARLUCCI. The different scenarios depend on when you assume sealift will arrive.

Senator COHEN. He said a minimum of 10 million tons per day of outsize is acceptable under Scenario One.

Mr. CARLUCCI. That does assume earlier arrival of sealift.

General BURKE. I think the word "additional" is in there.

Senator COHEN. That is in the second letter. An additional 5 million ton-miles per day of oversize/bulk was assumed. He says that is acceptable. That seems to contradict what I saw on your graph.

Mr. CARLUCCI. We will try to clarify that for the record.

Senator COHEN. That is all I have, Mr. Chairman. Thank you.

[The information follows:]

The airlift programs recommended in CMMS did not fully meet the requirements of any of the scenarios. Nevertheless, they were judged to be "acceptable" because they made a significant improvement and further improvement came at an increasingly heavy marginal cost. The term "acceptable" in Secretary Weinberger's letter to Senator Jackson should be understood in that context. It was not intended to mean "fully adequate to meet the requirement.

Chairman TOWER. Senator Nunn, do you have further comments?

Senator NUNN. I have some material I would like to put in the record, Mr. Chairman. General Rogers has written a letter on this, and several others that I would like to submit for the record.

[The information follows:]

Senator NUNN. Mr. Chairman, the material I would like to put in the hearing record includes:

1. Letters to heads of CBO and GAO stating several staff analyses that have been mentioned were just that—interim staff analyses. CBO and GAO state they are not reports, not conclusive, not official and make no recommendations.

2. I have an analysis from the commander of the Military Air Command dealing with the points raised in the CBO staff analysis.

3. I have an analysis from the Secretary of the Air Force dealing with the GAO questions.

4. I have a compendium of expert testimony in recent years supporting the priority need to procure outsize airlift.

5. I have recent statements from many of the major unit commanders of our Army and Marine combat forces from General Bernie Rogers, NATO, General Wickham, Korea, General Kingston, RDJTF, and commanders of our combat units all over the U.S.—Ft. Hood, Ft. Bragg, Ft. Stewart, Camp Lejeune, Ft. Campbell and many more—all describing now critical additional outsize airlift is to their missions.

EXPERT TESTIMONY—OUTSIZE AIRLIFT REQUIREMENT

Military experts in and out of uniform have unanimously proclaimed the need for airlift and there is universal recognition that the most critical specific airlift need is in the outsize category.

DOD

Secretary of Defense Harold Brown in testimony before the Senate Armed Services Committee, June 5, 1980. * * * "We have a critical need for intertheater airlift of outsize cargo."

Secretary of Defense Cap Weinberger * * * "To provide additional capacity for moving our large weapon systems and vehicles, we plan *** to produce 50 additional C-5N aircraft. The C-5 is our most flexible mobility resource; it is aerially refuelable and can carry a wide mix of unit equipment to any theater."

JCS

U.S. Military Posture for fiscal year 1983, prepared by organization of the Joint Chiefs of Staff, p. 55: "There is adequate passenger lift capability within the CRAF to support most major planned deployments. However, cargo airlift, especially for outsize equipment such as self-propelled howitzers, fighting vehicles, attack helicopters and support vehicles. * * * is less than adequate to meet early deployment and sustainability requirements."

"Mobility shortfalls are especially pronounced when multiple, simultaneous contingencies are considered. Although some military mobility needs can be met by commercial carriers, the features listed above (flexibility to operate in all areas of the world, responsiveness to changing needs of combat, ability to perform and survive near the combat objective, and capability to load and offload military equipment and supplies with a minimum of local support and equipment) require dedicated military mobility forces for the rapid projection and sustained support of combat forces."

AIR FORCE

Gen. Lew Allen, Chief of Staff in a speech to the AFA Convention, Los Angeles, CA., Oct. 26, 1979 (as reported in The Air Force Times): "The demand for the movement of Army 'outsize' cargo—which can be moved today only by the C–5—will increase fivefold between now and 1985."

Lt. Gen. Kelly H. Burke, Dep. Chief of Staff Rsch, Dev. & Acq. in his prepared statement to the Senate Appropriations Committee (Subcommittee on the Dept. of Def.) May 7, 1981. "For years we have known that our airlift assets were inadequate * * * our most pronounced shortfall lies in our capability to airlift out-size equipment. * * *"

Maj. Gen. Robert D. Russ, Dir. of Operational Requirements, article entitled "We Have to Get There in Time", Airlift Operations Review, Oct., 1981: "All of these major efforts plus others will add to our airlift. * * * We will still be short of airlift in general, but desperately short of airlift to carry the outsize equipment vital to our principal customers, the Army and Marine Corps."

ARMY

Gen. Edward C. Meyer, Chief of Staff in response to question for the record, "What is the Army's most pressing requirement in terms of airlift" Senate Armed Services Committee, Feb. 26, 1980: "* * * The major deficiency in the current airlift fleet's capability is its limitation in carrying outsize cargo. * * * For worldwide contingencies the shortfall in intertheater airlift of outsize cargo is the Army's most constrained factor." SASC, Feb. 22, 1980.

GAO

In discussing issues relative to the capabilities of the then proposed C–X, GAO Report B200766 dated April 6, 1981 observed that the capability to carry outsize loads may be crucial: ". . . equipment which comprises a C–X maximum load, such as battle tanks, are essential to the war effort, and the C–X's ability to move this equipment to the battle area quickly could be crucial * * *

RDF

Lt. Gen. Robert C. Kingston, USA, Commander, in response to question by Sen. Cohen (Chairman, Subcommittee on Seapower and Force Projection), Senate Armed Services Committee, on March 12, 1982, as to priorities if fiscal year 1983 funding to support the RDF had to be cut, answered that airlift money should be protected. (quoted in Aerospace Daily, March 16, 1982) Without knowing the size of any budget reduction * * * would make airlift the No. 1 priority, followed by sealift and military construction.

UNITED STATES GENERAL ACCOUNTING OFFICE,
Washington, D.C., March 30, 1982.

Hon. SAM NUNN,
U. S. Senate,
Washington D.C.

DEAR SENATOR NUNN: This is in response to your letter of March 25, 1982, asking about the status of a briefing paper my staff provided to the staff of the Senate Committee on Armed Services. The briefing paper was prepared in response to an informal request by the Committee staff that we examine the Department of Defense's airlift enhancement proposal. They asked that we brief them on our observations by early March 1982.

The briefing paper dated March 12, 1982, provides information, observations, and questions which we believe will be helpful to the Committee staff during the current deliberations on the fiscal 1983 budget. The paper draws no conclusions and makes no recommendations concerning Department of Defense decisions. The paper is not a report or draft report of the General Accounting Office and should not be cited as such. In response to your specific questions, the briefing paper is not a comprehensive evaluation of the Defense airlift needs and options for meeting the needs and, because it is not a report, has not been subjected to the internal reviews and approvals which we give to our reports.

While we share your concern that the briefing paper not be represented as a report or draft report of the General Accounting Office, we believe that providing real time assistance to congressional staff in examining issues before the Congress is particularly important. I have no reason to believe that the briefing paper does not serve this purpose in a highly professional manner.

We are continuing our review of the Defense airlift enhancement proposal and expect to issue a report later this year. If you would like to discuss the issues in the briefing paper or our ongoing review, please let us know.

We trust that this is responsive to your inquiry.

Sincerely yours,

W. H. SHELEY, Jr., *Director.*

CONGRESSIONAL BUDGET OFFICE,
U.S. CONGRESS,
Washington, D.C., March 29, 1982.

Hon. SAM NUNN,
U.S. Senate,
Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR: Your letter of March 22 asked about the status of the CBO analysis dealing with Administration proposals to expand airlift resources. I am pleased to have this opportunity to answer some questions that have arisen recently regarding our efforts.

Chairman Cohen of the Sea Power and Force Projection Subcommittee requested that CBO study the cost and other implications of alternative approaches to the Rapid Deployment Force (RDF). In the letter of request, Chairman Cohen asked that CBO review the Congressionally Mandated Mobility Study (CMMS). We have not completed the overall RDF study. We did, however, include a review of the CMMS in a briefing given to the Subcommittee staff on March 8. Subsequent to that briefing, the staff asked questions about the implications of the CMMS for proposals to expand airlift resources. The memorandum attached to your letter was part of our response to those questions.

My senior defense staff reviewed the memorandum. Since then, it has been reviewed by OSD staff personnel. We have prepared a revised and expanded version of the memorandum that explains our results and the differences with OSD. I have attached a copy of that memorandum.

As this discussion states, CBO has not conducted an independent, comprehensive study of airlift requirements or alternatives to meet those requirements. Our efforts instead focused on a review of the CMMS. Our final report to the Committee will examine mobility requirements to the extent that they bear on RDF issues.

I hope this answers your questions about our role in support of the Subcommittee. If you have further questions, please let me know.

Sincerely,

ALICE M. RIVLIN, *Director.*

Attachment.

[Memorandum]

CONGRESSIONAL BUDGET OFFICE,
U.S. CONGRESS,
Washington, D.C., March 29, 1982.

Subject: Updated review of CMMS.

The Congressional Budget Office was requested by the Sea Power and Force Projection Subcommittee of the Senate Committee on Armed Services to examine the plans and programs associated with the Rapid Deployment Force. The Committee request also specified that we should examine the Congressionally Mandated Mobility Study (CMMS) and incorporate that review in a preliminary briefing to the committee staff, which was given to you on March 8.

Subsequent to our preliminary report to the committee staff, you asked us to examine the CMMS at greater length, specifically examining some of the technical issues identified in the study, which were relevant to the congressional debate on airlift enhancement programs, especially after alternative options were raised. Senator Nunn has written to CBO about our efforts, based on material we provided you and other members of the staff. The material forwarded by Senator Nunn, however, contained a table of data on the contribution of the C–5, which was subsequently corrected, based on further data developed in the course of review of our preliminary analysis. The corrected table, which was adjusted for greater transit distances as suggested by OSD, was sent to you on March 24, and is attached here as Table 1. This memo presents key results of our revised review and then discusses in more detail the CMMS, the review, and comments on that review. (Several technical issues raised at our meeting this morning are still under review. Amended numbers will be forwarded if needed.)

KEY RESULTS OF CBO REVIEW

CBO has revised its calculations based on technical comments from OSD. These revised calculations suggest the following two conclusions, which are refinements of those we reached earlier. First, in a representative Persian Gulf scenario (Scenario II in the CMMS), the current airlift fleet, plus planned increases in C–5 spares and aerial refueling with the KC–10s, could meet about 90 percent of outsize airlift requirements by C–15. Indeed, the CMMS concludes that "the deployment is not constrained for lack of outsize capability, but rather total capability." Second, in the NATO scenario (Scenario III), outsize airlift requirements are not met by the current fleet, even with added spare parts and aerial refueling. Adding 50 C–5 transports substantially improves lift capabilities, especially by the critical C–10 time period.

THE CONGRESSIONALLY MANDATED MOBILITY STUDY [CMMS]

The CMMS was requested by the Congress in the spring of 1980 in the Department of Defense Authorization Act of 1981. The Congress directed that no money be spent on the new CX transport until certain requirements were validated and a comprehensive study was conducted that would justify the program in the context of comprehensive review of mobility requirements. The Congress directed that DoD should: examine plausible scenarios (both Persian Gulf and NATO scenarios); determine the lift required to deliver forces judged by the Department necessary to counter the threats postulated in the scenarios; note special environmental and operating considerations; denote the extent necessary for investment beyond current resources; provide a plan of "preferred additions to existing resources;" and examine at least one alternative set of additions.

The CMMS was sent to the Congress on May 21, 1981. Since the Reagan Administration had inherited the requirement to report the CMMS, but had not yet determined its plans for expanding airlift capabilities, the CMMS did not note specific programmatic alternatives for airlift, but discussed program additions in "generic" terms. Subsequent to release of the CMMS, the Air Force selected the McDonnell-Douglas Corporation design proposal—designated the C–17—as the winner of the CX competition. The Administration indicated that selecting a CX design did not commit the Administration to choosing the C–17 as its preferred course for airlift enhancement. In January of this year the Administration decided to expand airlift capacity by purchasing 50 updated C–5 transports and 44 KC–10 tanker/cargo aircraft.

CBO REVIEW OF CMMS SCENARIOS

The CMMS developed four scenarios. The details of the scenarios are classified. CBO chose to specifically examine two of the scenarios—Scenario II, which concerns a contingency in Southwest Asia; and Scenario III, which concerns NATO. These two were selected for the following reasons. First, from the standpoint of outsize cargo identified in the four scenarios, Scenario II and III represent the lower and upper bound, respectively, of outsize cargo airlift requirements in the early days of mobilization when, airlift is particularly important (see Appendix 1 of this memo for CMMS data on the two scenarios). Outsize requirements are an important issue, since the C–5 is the only airlift enhancement alternative that can carry outsize cargo. This point has been a central feature in the debate over airlift enhancement alternatives.

Second, CBO examined Scenarios II and III because the CMMS itself finds results in some of the other scenarios anomalous. CMMS examines in generic terms the contribution of added outsize versus oversize aircraft (C–5 versus B747-type aircraft) in reducing shortfalls in each of the scenarios (see CMMS tables reproduced at Appendix 2). The CMMS notes that in Scenarios I and IV additions of equal generic oversize or outsize airlift capacity (in millions of ton-miles per day) make a roughly comparable contribution in reducing the delivery shortfall. Indeed, the CMMS specifically notes that results in one of the scenarios are anomalous; they suggest that because of specific assumptions about types of cargo carried, additions of less capable generic oversize capacity will provide a greater short-fall reduction than will equal generic outsize capacity. Since the CMMS considers those results anomalous, we chose to examine scenarios II and III where additions of outsize airlift capacity were clearly more efficient in reducing shortfall than the same amount of generic oversize capacity.

Table 1 shows CBO's estimate of the contribution of various portions of the Administration's program in meeting tonnage requirements of the two scenarios. Several points emerge from this comparison. First, the trend in Scenario II is for a greater proportion of outsize requirements to be met over time. The exact reverse is true in the NATO scenario. Second, in the Persian Gulf scenario, the current fleet of C–5 aircraft (with increased spares parts that would permit operations at programmed utilization rates) can meet over 80 percent of outsize requirements by the C–15 time period. With the addition of the planned buy of KC–10s as tankers, almost 90 percent of requirements can be met. The Administration program to add 50 C–5s (45 PAA) will put outsize capacity above requirements by the C–15 time period.

This would mean that units with outsize equipment would be delivered sooner than at present or that the fleet of C–5s would be carrying certain quantities of bulk and oversize cargo to maintain a balanced deployment. It should be noted that the C–5 is a very capable transport for all categories of cargo, not just outsize equipment. Table 1 tends to support the statement in the CMMS that "the deployment [in Scenario II] is not constrained for lack of outsize capability, but rather total capability." (CMMS, page 5-15, para. 5.11.2)

Third, the Administration's program to add 50 C–5s (45 PAA) substantially contributes to meeting outsize delivery requirements in the NATO scenario. Traditionally, the C+10 day objective for NATO reinforcement has been a critical planning target. The CMMS indicates that for this scenario, adding outsize airlift is nearly twice as productive as adding equal generic capacity through oversize aircraft (see tables reproduced from the CMMS at Appendix 2).

RECONCILING CBO AND OSD ESTIMATES

OSD has sent to the Senate Committee on Armed Services estimates of the contribution of added outsize transports that differ markedly from CBO calculations. Those differences are caused by three factors. First, the OSD memo transmitting the estimates incorrectly labels the contribution as "outsize tons moved" when in fact they represent "outsize tons closed" (see Appendix 3). Closure dates include a specific time in theater required to assemble the forces and constitute them into fighting units. As such the OSD memorandum understates tonnages delivered since only the cargo that had been so constituted was counted as delivered.

Second, relative to CBO estimates, the OSD estimates of tons delivered are slightly understated since they used a lower average speed than is normally assumed for such analysis. The CMMS states that delivery estimates are understated by approximately 4 percent because of the lower average speed. In the process of CBO review, it was determined that those estimates were understated by approximately 7.8 percent.

The third source of differences concerns the specific details of the CMMS analysis itself. Table 2 presents a comparison of CMMS and CBO estimates of outsize cargo delivered in Scenario II. The CMMS numbers represent delivery, not closure estimates, and have been adjusted to account for the 7.8 percent understatement in the original CMMS. The two estimates differ most dramatically in the first five days of the deployment. According to technical data supporting the CMMS study (but not in volumes sent to the Congress), approximately two-thirds of C–5 airlift capacity was devoted to bulk and oversize cargo during the first five days. CBO assumed that C–5s carry only outsize cargo. Over time, higher proportions of C–5 sorties were devoted to outsize cargo. As such, CBO and CMMS estimates of outsize cargo delivered converge. The critical difference turns on the first five days of the deployment.

There might be several explanations for the fact that such a low proportion of outsize lift capacity in the early days of the deployment would be used to carry outsize cargo. The most likely explanation is that in the first days of mobilization that the C–5 must move high priority cargo, even though it might not be outsized cargo. Specific assumptions used in the computer model attempt to move units in a manner consistent with the operational commander's stated priorities. The movement priorities might place a unit with little outsize cargo ahead of units with substantial outsize cargo. If the computer models used to conduct the study allocate aircraft as they become available to the highest priority cargo, the early days of a mobilization might not have substantial deliveries of outsize cargo.

There are several potential ways to expand the outsize cargo delivery of the C–5s in the early days of a mobilization and so make more use of the C–5s outsize capability. One step, already taken to some degree by the Air Force, involves prepositioning of outsize equipment so that only bulk and oversize Air Force equipment need be transported. Oversize transports can then move these high priority units, thereby freeing the C–5s to move outsize cargo primarily in Army units.

Table 3 shows the effect of increasing the proportion of outsize cargo in C–5 airlift during the opening days of a deployment. The table assumes that the proportion of outsize cargo to total cargo moved in the remainder of the deployment period is achieved in the first five days. The differences between CBO and CMMS estimates subject to this modifying assumption are largely insignificant. This is not to say that such a program could be accomplished to that degree, but it does tend to indicate the importance of investigating carefully the detailed assumptions incorporated in the computer models used in the CMMS analysis.

TABLE 1. OUTSIZE CARGO REQUIREMENTS VS. C-5 AIRLIFT CAPABILITY
(Thousands of Short Tons/Percent of Cumulative Requirement)

	Persian Gulf Scenario (Scenario II)			NATO Scenario (Scenario III)		
	C+5	C+10	C+15	C+5	C+10	C+15
Cumulative Requirement	11.9	18.5	24.7	13.3	44.0	129.3
Present Capability	4.1/34%	10.1/55%	16.0/65%	10.3/77%	25.2/57%	40.1/31%
Increased Spares for C5	4.8/40%	12.5/68%	20.2/82%	12.0/90%	31.2/71%	50.5/39%
Aerial Refuel Capability KC10	5.2/44%	13.7/74%	22.1/89%	12.6/95%	32.7/74%	52.9/41%
New C5 Procurement	8.6/72%	22.5/122%	36.5/148%	20.7/156%	54.0/123%	87.2/67%

TABLE 2. CNMS - CBO DIFFERENCES IN ESTIMATES OF OUTSIZE CARGO LIFT IN SCENARIO II
(Thousands of Short Tons)

	C+5	C+5 - C+10	C+10 - C+15
CNMS	1.8	6.7	7.1
CBO	4.8	7.7	7.7
Difference	3.0	1.0	0.6
Percent Difference	166	15	8

TABLE 3. ADJUSTED CMMS ESTIMATES VS. CBO IN OUTSIZE LIFT FOR SCENARIO II (Thousands of Short Tons)

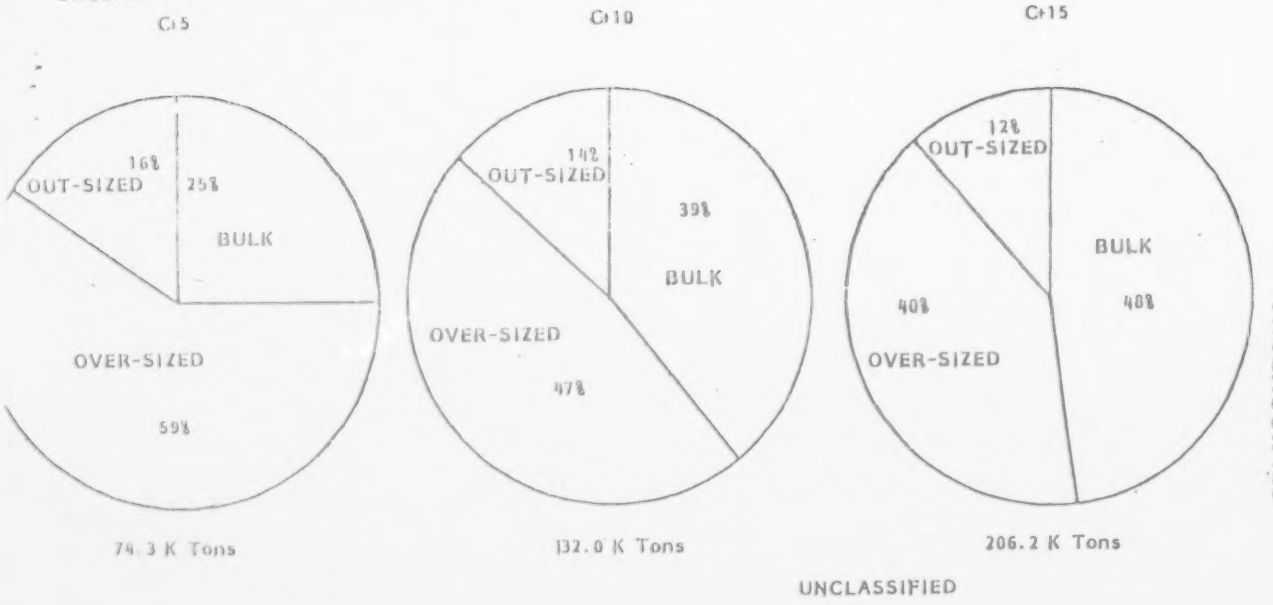
	C+5	C+10	(10-5)	C+15	(15-10)
CMMS	4.2	10.9	6.7	18.0	7.1
CBO	4.8	12.5	7.7	20.2	7.7
Difference	0.6	1.6	1.0	2.2	0.6
% Difference	14	15	15	12	8

TABLE 4. OVERSIZE AND BULK AIRLIFT REQUIREMENTS VS. C141 AND CRAF CAPABILITY 1/
(Thousands of Short Tons/Percent of Cumulative Requirement)

	Persian Gulf Scenario (Scenario II)			NATO Scenario (Scenario III)		
	C+5	C+10	C+15	C+5	C+10	C+15
Cumulative Requirement	62.4	113.5	181.5	75.5	215.0	349.5
Present Capability	8.6/14%	25.1/22%	41.6/23%	19.2/25%	54.3/25%	89.4/26%
Increased Spare C141B	9.1/15%	26.7/24%	44.2/24%	20.2/27%	57.8/27%	95.6/27%
KC10 as Airlifter in lieu of Aerial Refuel 2/	12.9/21%	36.6/32%	60.2/33%	27.8/37%	77.7/36%	127.7/38%

1/ Assumes full mobilization. B747 CRAF increases from 24 to 49 aircraft at C+5. B707 CRAF increaases from 30 to 45 aircraft at C+5.

2/ Assumes total of 54 KC10s (10% withhold) as dedicated airlifters with an average ACL of 61 ST and a block speed of 450. No aerial refuelers are available for C5s and C141Bs This option requires enroute bases for refueling all aircraft.



UNCLASSIFIED

(U) Figure 5.4. (U) Distribution of Potential Common-User Airlift Cargo, 1986, Scenario II

APPENDIX 1

UNCLASSIFIED

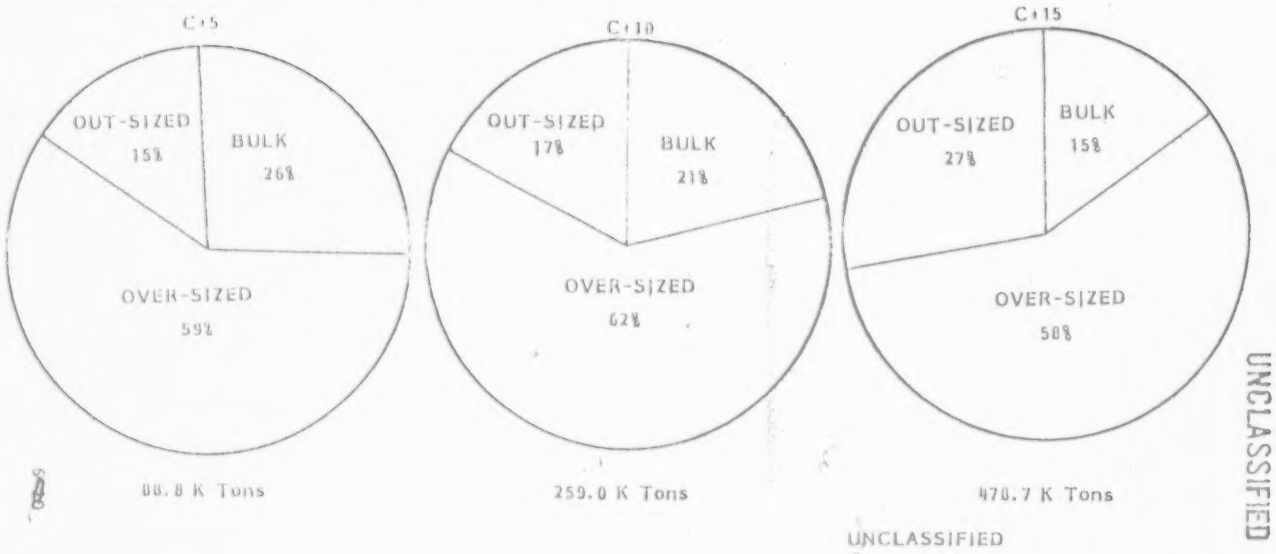
TABLE 6.2 (U)

CUMULATIVE LIFT DEMAND, SCENARIO III (U)

	DAY AFTER C-DAY					
	5	10	15	20	25	30
A. BASELINE						
Passengers (000)	323.5	455.4	535.8	569.0	638.0	787.0
Dry Cargo Tonnage (000)						
Unit Equipment						
Army	24.3	631.7	840.5	859.2	938.1	1313.3
Air Force	67.0	78.3	82.3	92.0	97.4	98.3
Marine	26.6	146.8	146.8	146.8	185.9	185.9
Navy	3.1	5.4	7.6	11.8	26.8	27.1
Ammo/Rsup	0.3	15.3	20.0	45.2	77.3	245.1
Total	121.3	877.5	1097.2	1155.0	1325.5	1869.7
B. ADJUSTED BASELINE FOR DOD PROGRAM (TOTAL DRY CARGO 000 TONS)						
1982[1]	121.3	482.5	702.2	760.0	930.5	1471.7
1986[2]	88.8	259.0	478.7	536.5	707.0	1251.2

[1] (U) Less tonnage for: 6 divisions of POMCUS (460K tons) plus shortages (65K tons) Net = -295K tons.

[2] (U) Less tonnage for: 6 divisions of POMCUS +2 Separate brigades (shortages assumed satisfied) (490K tons), USMC prepositioning for 1 brigade-sized MAGTF - Norway (20K tons), 2 MPS (96K tons), Air Force prepositioning (12.5K tons).



(U) Figure 6.3. (U) Distribution of Potential Common-User Airlift Cargo, 1986, Scenario III

APPENDIX 1

UNCLASSIFIED

TABLE 5.2 (U)

CUMULATIVE LIFT DEMAND (U)

	Day After C-Day					
	5	10	15	20	25	30
A. BASELINE						
Passengers (000)	91.0	113.3	137.7	208.2	251.4	261.2
Dry Cargo Tonnage (000)						
Unit Equipment						
Army	36.6	57.8	89.5	281.9	361.3	373.4
Air Force	26.3	32.7	33.3	35.4	36.7	36.9
Marine	47.9	47.9	47.9	67.1	67.1	67.1
Navy	2.1	2.1	2.1	2.1	56.9	58.4
Ammo/Rsup	5.4	52.7	103.2	182.7	302.8	416.9
Total	118.3	193.2	276.0	569.2	824.8	952.7
B. ADJUSTED BASELINE FOR DOD PROGRAM (Total Dry Cargo 000 Tons)						
1982 (-NTPS)	98.4	169.3	248.1	537.3	788.9	912.8
1986 (-2MPS)	74.3	132.0	206.2	490.8	737.8	857.1

TABLE 5.3 (U)

SCENARIO I & II COMPARISON OF DRY CARGO TONNAGE (U)

	Days After C-Day					
	5	10	15	20	25	30
I	63.2	164.8	199.4	242.1	480.2	684.5
II	74.3	132.0	206.2	490.8	737.8	857.1

UNCLASSIFIED

TABLE 10.1 (U)

INCREMENTAL MOBILITY PROGRAM ALTERNATIVES COST AND CAPABILITY DATA (U)[1]

	Cost (BZ $B)				Reduction in Baseline Shortfall by Scenario (Millions of weighted tons)			
	R&D	Proc	20 Yr O&S	20 Yr LCC	I	II	III	IV
Airlift								
Outsize, Austere Airfield Capable[2]								
10 MIN/D	0.5-1.3	6.3-8.5	8.0-10.4	14.8-18.2	0.7	1.2	1.2	3.9[5]
15 MIN/D	0.5-1.3	8.7-9.3	11.2-15.8	21.1-26.2	0.9	2.3	1.6	4.9
20 MIN/D	0.5-1.3	11.0-11.6	15.8-20.8	27.4-33.0	1.1	2.7	2.0	7.8
26 MIN/D	0.5-1.3	13.3-14.3	20.0-26.1	33.8-41.7	1.2	2.9	2.2	9.3
Oversize, Main Airbase Capable[3]								
10 MIN/D	0-0.5	4.8-5.8	8.4-9.8	13.7-16.1	0.8	0.8	0.6	3.0[6]
15 MIN/D	0-0.5	6.5-7.4	12.9-14.2	19.9-22.1	0.9	0.9	0.9	5.5
20 MIN/D	0-0.5	8.9-9.9	17.3-18.9	26.2-29.3	1.2	2.0	1.2	6.2
Prepositioning[4]								
Land-based Prepositioning of Unit Equipment (100kTons)	0	1.1-1.3	0.4-0.6	1.6-1.8	1.7-1.7	3.2-3.3	0.8-2.6	6.4-6.5
Maritime Prepositioning of Unit Equipment (100kTons)	0	1.1-3.6	3.3-4.1	4.4-6.7	1.7-1.7	3.2-3.3	0.8-2.6	6.4-6.5
Land Based Prepositioning of Resupply and Ammo (100kTons)	0	0.6-0.7	0.4-0.5	1.0-1.2	1.6	3.8	0.9	3.7
Maritime Prepositioning of Resupply and Ammo (100kTons)	0	1.3-1.3	1.3-1.4	2.5-2.7	1.6	3.8	0.9	3.7
Sealift[5]								
Very Fast Ships (100kTons)[7]	0.5	3.5-9.7	5.6-13.2	9.6-23.6	1.7-1.2	4.4-6.8	2.0-1.4	12.5-9.4
Dedicated Fast RO/RO Ships (100kTons)	0	1.4-1.6	1.1-1.2	2.5-2.8	1.1	1.6	0.5	6.0
Dedicated RO/RO Ships (100kTons)	0	0-2.3	2.9-1.7	2.9-4.0	0.9	0.7	0.4	5.8

[1] (U) Except for an outsize field capable airlifter, costs do not reflect intratheater movements from APOD/SPOD or prepositioning locations.

[2] (U) The cost depends on whether a new design or a derivative is chosen.

[3] (U) The cost depends on which particular aircraft is procured.

[4] (U) The procurement cost depends on what type of units are prepositioned. In addition, total cost for maritime-based alternatives depends on the type of ship used--existing, modified, or new--and whether chartered or operated by MSC.

[5] (U) The cost depends on what particular ship is selected in each category.

[6] (U) Comparison of these two figures highlights an anomaly for use of tons as the measure. In this scenario the outsize airlifter, early-on, is carrying outsize cargo that is significantly less dense than the cargo carried by the equally capable oversize fleet. With incremental additions, this difference becomes of lesser importance.

[7] (U) Range for cost and shortfall reductions: left hand figures--3K ton payload ships; right hand figures--3K ton payload ships.

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APPENDIX 31

Impact of Additional Outsize-Capable Aircraft in CYMS Scenarios

C+	Outsized Cargo Moved (Tons) 1986 Baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D	% Increase Over Baseline +10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I							
5	734	972	1,094	1,273	32	49	73
10	3,506	3,559	3,799	3,961	2	8	13
15	5,810	8,276	9,162	9,749	42	58	68
30	16,140	19,238	24,615	26,379	19	53	63
45	20,600	21,154	27,369	28,731	3	33	39
60	Deployment completed by C+45						
Scenario II							
5	1,684	2,199	2,857	3,332	31	70	98
10	3,555	6,666	7,165	7,952	88	102	124
15	10,424	14,253	15,740	16,415	37	51	57
30	24,455	30,263	30,330	30,328	24	24	24
45	39,735	45,369	51,450	56,273	14	29	42
60	56,036	58,455	70,268	73,968	4	25	32
Scenario III							
5	2,504	2,504	2,504	2,504	0	0	0
10	4,358	11,728	12,411	13,564	168	184	211
15	14,224	27,229	29,753	30,861	91	109	117
30	45,986	61,391	69,191	82,469	33	50	79
45	74,976	117,780	137,037	152,851	57	83	104
60	100,196	162,252	174,834	199,713	62	74	99
Scenario IV							
5	998	1,005	1,109	1,187	1	11	19
10	4,207	7,234	7,905	8,803	72	88	109
15	7,433	11,006	11,334	12,007	48	52	62
30	21,731	33,304	36,714	46,335	53	69	113
45	43,377	50,439	69,792	85,740	29	61	98
60	67,571	108,026	129,519	144,568	60	92	114

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330

OFFICE OF THE ASSISTANT SECRETARY

Mr. James R. Locher, III
Professional Staff Member
Senate Armed Services Committee
224 Russell Senate Office Building
Washington, D.C. 20510

Dear Jim,

Following my testimony to the Subcommittee last Friday, you handed me a copy of a GAO assessment of the Airlift Enhancement Program paper prepared by Air Force Ad Hoc Airlift Enhancement Committee which I chaired on behalf of Dr. Keel. The GAO assessment signed by Frank Willis, concludes with a list of fourteen questions.

I have attached our answers to the fourteen questions. If I may be of any further assistance, please let me know.

Sincerely,

LLOYD K. MOSEMANN, II
Deputy Assistant Secretary
(Logistics)

Atchs

GENERAL COMMENTS

Page i, para 1 and page 11. The GAO is in error in implying that DOD originally intended to procure the winner of the C-X competition and then changed its mind and bought C-5s. From the very beginning both internal and public SecDef statements made it clear that we would compare new designs to existing designs and derivations thereof to see how large a cost, schedule, or other penalty had to be paid for good austere airfield capability. The contractors were well aware of this. We might have had less of a problem if we had called the MENS and the program element "Airlift Enhancement" to differentiate them from the C-X.

Page 1 and page 3, last para. There is no such thing as an airlift requirement. There are, however, requirements for early availability of forces or supplies that can only be met by some combination of forward deployment, prepositioning, and airlift. We are relying very heavily on prepo, but prepo needs airlift to be effective and sites for prepo in SWA are not certain.

Page 3, para 2. Things may be "desirable," yet not "required."

Page 5, para 2; page 8, para 2; page 10, last para. CMMS data shows that, for the first 15 MTM/D of added airlift, oversize is more effective than outsize only for Scenario IV. In Scenarios II and III, outsized airlift is clearly preferred and in Scenario I it is essentially a wash. GAO is misrepresenting CMMS results.

GAO concludes that, since we are only buying 13 MTM/D, it should therefore all be oversize. Even if all Scenarios showed the same trend, the conclusion would be true only if we planned to stop at 13 MTM/D. But we don't, and we are going to have to buy outsize eventually, so we may as well do it now. Lockheed won't be able to offer as good a price once the C-141 Stretch mod work force is gone. At some later date we would probably buy a new design. If we bought 747s now vs. C-5, we would then have five types of aircraft--C-141, C-5, KC-10, 747s, and CX--vs. perhaps four with our program.

GAO QUESTION 1

1. The "Department of the Air Force Airlift Enhancement Program" document prepared by the Ad Hoc Airlift Enhancement Committee shows the data and rationale supporting a major airlift procurement. Why was the document not formally concurred in by the preparers' organizations? Why is the document "not to be represented as a work" of the ad hoc committee?

RESPONSE

The purpose of the Ad Hoc Committee was to document the various considerations which were the basis of the near-term Airlift Enhancement Program decided upon by the DOD Single Manager for Airlift (the Secretary of the Air Force) in consultation with the Secretary of Defense. Because the near-term program only became possible at the very end of the FY83 budget preparation process, not all participants and affected organizations were equally aware of all the factors considered. It was the purpose of the Ad Hoc Committee to bring all of these considerations together into a single paper.

The paper was not formally coordinated because the Ad Hoc Committee (consisting of general officers and/or Senior Executive Service personnel from OSD, JCS and all Military Services) was functioning in the capacity of an advisory body to the DOD Single Manager for Airlift. It is the Secretary of the Air Force, as the Single Manager, who ultimately has the responsibility for determining and budgeting for DOD airlift enhancement requirements. The paper was promulgated on February 5, 1982 by the Secretary of the Air Force to the Deputy Secretary of Defense, the Chairman, Joint Chiefs of Staff, the Secretaries of the Army and Navy, and the Chief of Staff of the Air Force.

GAO QUESTION 2

2. The CMMS recommended adding 20 million ton miles per day airlift capability, saying further capability would provide little or no improvement in effectiveness. Why does the ad hoc committee document cite the CMMS as showing an airlift shortfall of at least 40 million ton miles per day?

RESPONSE

The CMMS recommended program of airlift, sealift and prepositioning does not satisfy the unit closure requirements. The program was preferred over larger programs because it provides the greatest improvement for a reasonable amount of investment. Therefore, the CMMS recommendation of 20 million ton miles per day (MTM/D) of airlift is not a maximum increase for airlift.

The CMMS does not conclude that additional airlift "would provide little or no improvement in effectiveness." Any additional airlift improves effectiveness. What the CMMS does state is that "beyond 15 MTM/D, incremental increases in capability produce substantially smaller benefits per dollar" for some scenarios. This happens because, as the allowable delivery time decreases, considerably more lift assets are needed earlier to show significant improvements. Since the CMMS recommendation did not meet the requirements identified, the Air Force went one step further for the least demanding scenario. To meet the full requirement of the least demanding scenario requires approximately 40 MTM/D of airlift above the 1986 baseline, and, of course, commensurate prepositioning and sealift. Therefore, the ad hoc committee reflected this as the minimum airlift shortfall, indicating that the planned procurement of 44 KC-10s and 50 C-5s reduces, but does not eliminate, the airlift deficit.

GAO QUESTION 3

3. According to the ad hoc committee document, the proposed additional airlift will "move us toward" the capability to deploy the Rapid Deployment Joint Task Force to Southwest Asia in 4 to 6 weeks, and then to reinforce Europe with 6 Army divisions and 60 Air Force tactical fighter squadrons in 10 days. What additional airlift, with a mix of sealift and prepositioning, will actually achieve such capability?

RESPONSE

In addition to what is now in the FY 83-87 program we would need

- enough additional airlift to reach the CMMS recommended level
- additional prepositioning in SWA for Air Force base support and Army logistics untis (about 100,000 tons of materiel equivalent to about 35 MTM/D of airlift
- the additional dedicated sealift recommend in CMMS. Because we are still refining the details of support requirements in SWA, there is some uncertainty in that figure.

CAO Question 4

Q: Military utility, "training capability," and "logistic support elements" were given as deciding factors in rejecting the B-747F civil aircraft as an airlift enhancement alternative. Please define these requirements and provide the analyses used in assessing the B-747F against the requirements.

A: An aircraft's military utility is determined by those characteristics that allow it to perform its mission in the expected military environment. Required/desired wartime features for an intertheater military airlifter include outsize cargo capability, rapid onload/offload capability, ground support equipment/facilities compatibility, austere field capability, and airdrop/extraction capability.

The B-747-200F lacks certain features required for the efficient transport of military equipment:

-- Full cargo compartment cross-section loading openings
-- Adequate cargo compartment floor strength
-- Integral, self-deployable cargo ramps
-- Truckbed-height loading
-- Drive-on/drive-off capability
-- High-flotation landing gear
-- In-flight refueling

Loadability, particularly of outsize type cargo, is the major problem with the B-747. The Boeing Company provided data indicating a high percentage of loadability; however, to attain this percentage, a portion of the equipment requires special handling and/or major disassembly (removing rotors, snubbing wheels, and loading on special fixtures). In addition, it requires extra time and manpower for disassembly and reassembly.

Loadability of military equipment involves more than just clearances through the doors. Rapid on- and offloads are essential to the smooth, high-volume traffic flow expected in major deployments. Aircraft which offer drive-on and drive-off loading have significant advantages over those which require extensive high lift materials-handling-equipment support.

Boeing has offered a self deployable loading ramp to provide a drive-on/drive-off capability. They have also offered a deck-lowering nose jack for the same purpose; however, loading on an inclined floor would require vehicle tie down with drivers holding brakes--more time consuming and not as safe as level floor loading. Further, the B747-200F cargo floor is not stressed for wheeled or tracked vehicles. Consequently, vehicles must either be loaded on pallets or a temporary pallet floor laid down to drive on, so the "drive-on/drive-off capability" offered is specious at best.

The B747 also requires special equipment for ground refueling. Because of the height of the refueling point, special stands or trucks/hydrants are required. Military airlifter refueling points are accessible from ground level and allow refueling from either trucks or hydrants.

The B747-200F has no airdrop/extraction capablity and no realistic austere field capablity.

Because the C-5 and KC-10 are already in the Air Force inventory, their training and logistics support bases are established. The Air Force has no such bases for a force of B747s.

GAO QUESTION 5

5. The CMMS included analyses which, among other things, measured cargo flow with 20 million ton miles per day airlift capability added to a 1986 baseline. How much of the additional cargo carried was outsize for each scenario, in 15 day increments? Were these "ton mile per day" data used to determine the recommended 10 million ton miles per day of outsize airlift capability? If not, what was used to support the recommendation?

RESPONSE

In determining the appropriate mix of outsize/oversize cargo in the CMMS one must remember an additional 5 MTM/D of oversize/bulk capability was assumed in the 1986 baseline. Using Table 10.1 in the CMMS (depicted in question 7), a minimum of 10 MTM/D of outsize is acceptable for scenario I. In all other scenarios at least half of the additional airlift must have outsize capability to avoid an outsize constraint. The comparison of 10 MTM/D oversize and 10 MTM/D outsize compared to 20 MTM/D of outsize shows the following scenario results in million of weighted tons reduction. I 1.5 vs 1.1; II 2.0 vs 2.7; III 1.8 vs 2.0; and IV 7.2 vs 7.8. Clearly the acquisition of an outsize system that also efficiently carries bulk and oversize cargo produces the greatest benefits in cargo movement and operational flexibility. In addition, so as not to overstate the outsize requirement and to insure optimum use of the outsize capability, the existing C-5 was programmed to move outsize cargo up to 5-7 days ahead of bulk and oversize requirements.

The attached table shows, for each scenario, the outsized cargo delivered in the base case and in cases with 10, 15 and 20 MTM/D of additional outsize-capable airlift. It also shows the percent increase in delivery of outsize cargo at those levels of additional airlift. In general, we focus on the need for airlift in about the first month, since sealift would bear the brunt of movement after that time and airlift would be used to meet the unexpected demands of a fluid combat situation. CMMS conclusions were based on all these data and on judgments about the minimum buy necessary to justify opening a production line. Please remember that CMMS was intended to illuminate the relationships among airlift, sealift, and prepositioning not to make fine judgments among airlift types. Furthermore, all CMMS numbers were rounded to the nearest 5 MTM/D, so 10 MTM/D of outsized could be anything between 7.5 and 12.5 MTM/D.

Impact of Additional Outsize-Capable Aircraft in CMMS Scenarios

	Outsized Cargo Moved (Tons)				% Increase Over Baseline		
C+	1986 Baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D	+10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I							
5	734	972	1,094	1,273	32	49	73
10	3,506	3,569	3,799	3,961	2	8	13
15	5,810	8,276	9,162	9,749	42	58	68
30	16,140	19,238	24,615	26,379	19	53	63
45	20,600	21,154	27,369	28,731	3	33	39
60	Deployment completed by C+45						
Scenario II							
5	1,684	2,199	2,857	3,332	31	70	98
10	3,555	6,666	7,165	7,952	88	102	124
15	10,424	14,253	15,740	16,415	37	51	57
30	24,455	30,263	30,330	30,328	24	24	24
45	39,735	45,369	51,450	56,273	14	29	42
60	56,036	58,455	70,268	73,968	4	25	32
Scenario III							
5	2,504	2,504	2,504	2,504	0	0	0
10	4,368	11,728	12,411	13,564	168	184	211
15	14,224	27,229	29,753	30,861	91	109	117
30	45,586	61,391	69,191	82,469	33	50	79
45	74,976	117,780	137,037	152,851	57	83	104
60	100,196	162,252	174,834	199,713	62	74	99
Scenario IV							
5	998	1,005	1,109	1,187	1	11	19
10	4,207	7,234	7,905	8,803	72	88	109
15	7,433	11,006	11,334	12,007	48	52	62
30	21,731	33,304	36,714	46,335	53	69	113
45	43,377	60,439	69,792	85,740	39	61	98
60	67,571	108,026	129,619	144,568	60	92	114

GAO QUESTION 6

6. The ad hoc committee recommended adding only 13.1 million ton miles per day of organic airlift to the 1986 baseline. Using CMMS methodology as in question 5, please identify the additional quantity of outsize cargo which would be moved with the lower levels of airlift enhancement.

RESPONSE

The committee made no recommendation. It documented a decision. That decision includes C-5s, KC-10s, and CRAF Enhancement for a total of 17 MTM/D of added capability. CMMS data are not available for additions of either 13 or 17 MTM/D but these points are bracketed by points in table attached to the response for question 5.

GAO QUESTION 7

7. CMMS data indicate that, when airlift enhancement is reduced from 20 million ton miles per day to 15, oversize, main airbase capability becomes more effective than outsize, austere airfield capability in near-term efforts to meet the Administration's goal. Why is Defense proposing to buy outsize aircraft in the near-term?

RESPONSE

The conclusion reached by GAO and stated in this question is valid only for CMMS Scenario IV. The opposite conclusion would be drawn from the data for Scenarios II and III and no conclusion can be drawn from the results in Scenario I. The CMMS recommendation was drawn from these data and judgments about the reasonable level of airlift necessary to justify opening a production line.

Hence, the CMMS data does not indicate that a reduction from 20 MTM/D to 15 MTM/D favors an oversize aircraft. In three out of four of the CMMS scenarios any such reduction favors an outsize aircraft as shown in the table below. For example, in Scenario II, two programs with the same level of total capability (15 million-ton-miles/day) -- the first a commercial oversize derivative and the second, a new military outsize cargo aircraft -- produce substantially different results, 0.9 and 2.3 million weighted tons of shortfall reduction respectively. Although the outsize carrier may cost more ($21B to $26B in 20 year LCC vs $19B to $22B for the oversize carrier), the outsize aircraft would appear to be more effective in terms of cost per unit of shortfall reduction. For most of these scenarios, the types of cargo required early are large but not dense. Iterations of various lift levels with this measure indicated that an outsize carrier providing both outsize and oversize capability is more efficient than an oversize carrier.

EXTRACT FROM TABLE 10.1 CMM

	Reduction in Baseline Shortfall by Scenario (Millions of Weighted Tons)			
	I	II	III	IV
Airlift				
Outsize, Austere Airfield Capable				
10 MTM/D	0.7	1.2	1.2	3.4
15 MTM/D	0.9	2.3	1.6	4.9
20 MTM/D	1.1	2.7	2.0	7.8
Oversize, Main Airbase Capable				
10 MTM/D	0.8	0.8	0.6	3.8
15 MTM/D	0.9	0.9	0.9	3.8
20 MTM/D	1.2	2.0	1.2	6.2

NOTE: The levels of additional airlift are in units of millions of ton miles per day. Reductions in shortfall are in units of millions of weighted tons.

In addition, DOD is not proposing to stop at the near-term increment of just 13 MTM/D but to complete the CMMS recommendation in the long-term. Finally, the CMMS used 20 MTM/D of outsize, austere airfield capability in the final analysis of shortfall reduction. Except for the austere airfield capable airlifter, the costs of other alternatives in the CMMS do not reflect the intra-theatre movements from main airbases/sea ports or prepositioning locations to operating locations.

GAO Question 8a

Q: What did the McDonnell-Douglas data show on availability of the C-17 versus the C-5?

A: Lockheed proposes to deliver the first C-5 38 months after contract go ahead and they plan to deliver the 12th aircraft 56 months after go ahead.

With full C-5 Program TOA devoted to the C-17 McDonnell-Douglas asserts the C-17 could make first flight 40 months after contract go-ahead and could deliver the 12th aircraft 56 months after go ahead.

BILLIONS (TY $)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
TOA	270	800	1950	1960	2455	725*

If one assumes that a portion of the planned TOA would be held back by the government for those other costs necessary to field a program, in this case 10% of TOA, Douglas maintains that the C-17 could reach first flight 46 months after contract go ahead and the 12th aircraft delivery would occur 62 months after G/A. This profile is:

BILLIONS (TY $)

FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
243	720	1755	1764	2209.5	---*

*Value of 725 is for completion of 50 C-5's for C-17 use whatever funding that's reasonable to continue production.

The first profile is not realistic in that all C-5 TOA will not go to Lockheed, nor would all go to McDonnell-Douglas if the C-17 were procured in lieu of the C-5. Moreover, the McDonnell-Douglas profile reflects a high degree of technical concurrency which the SASC had indicated in FY82 that it did not countenance. Early delivery of airlift without the technical risk associated with concurrency can only be realized by procurement of the C-5.

GAO QUESTION 8b

8b. If the C-17 schedule can be accelerated with the increased funding made available, why is the C-5 considered the preferred choice considering the previously-stated advantages attributed to the C-17?

RESPONSE

The C-17 schedule options presented by Douglas use a commercial development approach rather than a phased development typical of government programs. That is, a commitment is made to production at the very outset of the program and prior to completing development testing. While this is possible for the C-17, it does increase the program risk. For example, if deficiencies are discovered in the design during static and fatigue testing or in flight test, significantly more re-work cost is incurred if production is in full swing than if the production decision is delayed until near the end of testing. The C-5 production, when measured against this commercial approach, has much less risk than the C-17 program.

The C-17, being a new aircraft, will incur the normal start-up activity associated with such a new program. That is, we would have to initiate a training program for aircrew and maintenance personnel and would have to develop a worldwide spare parts network to support the airplane. The C-5, on the other hand, already has the established infrastructure and aircraft delivered would be sent directly to the operating units.

Thus, even though the C-17 has some definite operational advantages, we would still opt for the C-5 because it has lower risk and it is able to reduce the urgent and compelling intertheatre shortfall that exists today.

GAO QUESTION 9

9. Please provide the basis for the determination that 44 KC-10s and 50 C-5s were the required quantities of aircraft that should be included in the airlift enhancement program?

Response

The decision was made specifically to provide a near-term reduction (not solution) to our serious inter-theatre shortfalls. In making the decision to increase our inventories of KC-10 and C-5 aircraft, an important consideration was business arrangements that allowed expeditious, cost-effective increases in airlift capability. Hence, the simple answer to this question is that the number of aircraft that we intend to procure in the near-term was determined by favorable procurement opportunities available. We have an existing contract for KC-10 production with 44 remaining ordering options. Thus the decision was to simply buy out the current contract. Lockheed offered 50 C-5 aircraft under a proposed fixed price contractual arrangement. The company was unwilling to provide extended pricing for aircraft quantities greater than 50 on a fixed price basis. Therefore, it was decided to procure just the 50 aircraft that comprised the firm offer.

However, it is also true that, with respect to the KC-10, various studies made at the time we initiated the Advanced Tanker Cargo Aircraft procurement, demonstrated that a force of approximately 60 KC-10s will provide significant mobility enhancement through the aircraft's dual refueling and cargo carrying capabilities. Sixty KC-10s, combined with the current KC-135A and future reengined KC-135R tankers represent a flexible force mix to cover likely aerial refueling requirements. Depending on the operational scenario, 60 KC-10s would provide the needed refueling for tactical fighter deployments and would also carry required cargo and support equipment and personnel. The KC-10s would also augment strategic airlift through both refueling of C-5/C-141 aircraft and by carrying cargo. Moreover, it can perform both cargo handling and refueling on a single mission. The 60 KC-10s would also minimize withdrawal of KC-135 aircraft from their primary SIOP support role thus reducing the operational risks to the strategic bomber force.

As regards the C-5, I suspect that the number of aircraft in the Lockheed proposal derived from the CNMS Study which recommended outsize capability equivalent to 44 C-5s - using standard AF factors, the "44" equates to about "50" in consideration of various backup aircraft requirements for attrition and maintenance float.

On the other hand, the C-5 buy will only provide 8.2M/day of the 10.0 MTM/day of outsize capability recommended by CNMS.

GAO QUESTION 10

10. The Secretary of Defense said, in December 81, that a comprehensive airlift acquisition strategy would be presented to the Congress when the decision to acquire additional airlift was made. The ad hoc committee document states that an overall long-term airlift strategy will be developed by the first quarter of FY 1983. When does the Department of Defense plan to submit its overall comprehensive long-term airlift acquisition strategy to Congress?

RESPONSE

The Secretary of Defense, in December 1981, had reference to the comprehensive airlift strategy embodied in the FY83 budget. This strategy is comprised of near-term and long-term plans as set forth in Secretary Orr's decision paper (referred to by the GAO as the Ad Hoc Committee document).

The Secretary of Defense detailed a comprehensive near-term "improve readiness now" airlift acquisition strategy in both written statements for the record and in oral testimony on the FY83 DOD budget. This acquisition strategy is to procure 50 C-5s and 44 KC-10s, both under fixed price escalation contract arrangements. This includes a plan to keep open the C-17 option. After all, the C-17 is the direct result of a rigorous competitive source selection as recently as 1981.

The C-17 was selected as the winner of an intense competition. NASA was asked and offered the opinion that while the overall C-17 technical risk was no greater than a typical commercial airliner development, there was concern with the proposed design approach for engine reverse and with the blown flap high lift performance on a swept wing aircraft in high angles of attack/low airspeed regimes. The purpose of the initial C-17 design task will be to reduce the risk in these specific areas prior to committing to full scale development. At this point we plan to spend two years of effort in preliminary design to address these risks, and then four years of effort to finalize the design, construct a pre-production test aircraft and conduct a comprehensive test program.

The quotation from the ad hoc committee document refers to a long range strategy. Frankly, we have a lot of work to do with respect to quantifying the intra-theatre requirements. We know, for example, that an immediate deficit exists in Europe for 100 C-130 equivalents, a shortfall considerably above 50% of the requirement in the early days of a NATO engagement. Both OSD, in a contract with the Institute of Defense Analyses, and the Military Services are making studies. In addition, we need to assess more fully the impact of new Defense guidance and the benefits of the whole range of near-term initiatives. Hence, our objective is the FY85 budget submit.

GAO QUESTION 11

11. The Air Force apparently placed a great deal of reliance on the reasonableness of the C-5 unsolicited proposal, including price. Preliminary estimates by the Air Force indicate that it could cost Lockheed about $350 million more to produce 50 C-5s than Lockheed proposes to build them for. What assurance is there that Lockheed can deliver 50 aircraft at the proposed price?

RESPONSE

The $350M concern originally identified by the Air Force related to two issues:

- $100M for refurbishment of tooling - (we have now concluded that we misunderstood the Lockheed proposal, and that this cost is included).

- $250M on the subjective basis that the Lockheed assumptions regarding learning curve benefits were somewhat too optimistic. I'm afraid "subjective judgment" is the only way I can characterize this issue. We are satisfied that we can live with this in that Lockheed is willing to sign a fixed price contract.

The remaining $250M difference represents approximately 5% of the contract value. The Lockheed proposal is fixed price and if Lockheed's learning estimates are correct, they would achieve a profit of approximately 14%. In any case, the cost to the government would be the same.

You should also be aware that there are varying assumptions and opinions regarding the amount of inflation escalation in the out years. The current budget reflects the OSD projection of inflation rates as of 18 Jan 1982, which is about $500M higher than the Lockheed estimate.

GAO Question 12

Q: One of the reasons offered for selecting the C-5 was its early availability. What analyses were done by DOD or the Air Force which would confirm that the necessary personnel, facilities, tooling, and other resources are available or can be made available in time to meet the proposed delivery schedules?

A: Lockheed's ability to produce the C-5 was evaluated from the personnel, facilities, tooling, and manufacturing readiness viewpoint during the C-X competition. Their manufacturing readiness was found to be adequate for the program they proposed.

GAO Question 13

Q: The earlier recommendation of the Air Force to buy C-17s would have resulted in the acquisition of only one purely cargo aircraft to meet its airlift shortfall. Rationale supporting the decision to acquire C-5s indicate the Air Force still wants and needs a C-17 type aircraft. Was the long-term cost effectiveness of acquiring two different cargo aircraft rather than one considered in the recent airlift enhancement decision?

A: The long-term effectiveness of buying a mix of C-5s and C-17 is not appreciably different from buying only C-17s since the long-term strategy has always included continued use the currently owned C-5As. To that end, the Air Force is insisting that the new C-5s be as much like the C-5As as possible. By changing the ultimate force mix to include a greater number of C-5s, more outsize capability can be gained sooner, without an adverse impact on overall force supportability.

GAO QUESTION 14

14. Does the Air Force plan to acquire the C-17 on a sole source basis in the future? If it does, what is the basis and what are the advantages/disadvantages of doing so? Why is a low level C-17 R&D effort necessary now? Why couldn't this be done if and when it is decided to acquire the C-17?

RESPONSE

If the C-17 development efforts prove as successful as anticipated, then production of the C-17 in the late 1980s can relieve the airlift capabilities shortfalls anticipated for that time frame. A low level program based on a competitively selected design provides a methodical progression to a production decision. The C-17 design is based on requirements which considered both current and longer-term airlift needs. It was selected after an intense technical competition. Reaccomplishing the competition design phase would serve no purpose, would be extremely costly to the government and industry, would delay the program initiation, and would thus force a more time constrained program to meet the late eighties/early nineties requirement.

With respect to the question whether a low level of C-17 R&D effort should be begun now, rather than later, there is one disadvantage and several advantages. The only disadvantage of spreading the R&D effort over about six years is that funds, albeit at a low level, will be required sooner. There are several advantages. For one thing, such a graduated program would virtually eliminate the kinds of technical risks that gave the C-5 an undeservedly bad reputation early in its life. The way I expect that we will propose acquisition of the C-17 will be the classic textbook approach to developing an airplane on a low risk basis. As you know, we rarely have the time for an orderly acquisition. We should take advantage of such opportunity when we can. This opportunity will be afforded if the C-5 is procured as the near term fix to our immediate airlift needs.

DEPARTMENT OF THE AIR FORCE,
HEADQUARTERS MILITARY AIRLIFT COMMAND,
Scott Air Force Base, Ill., March 31, 1982.

Hon. SAM NUNN,
Committee on Armed Services,
U.S. Senate, Washington, D.C.

DEAR SENATOR NUNN: This is in response to your 25 March letter regarding the Congressionally Mandated Mobility Study (CMMS). As I stated during recent hearings we have a major shortfall across the board in bulk, oversize, and outsize capability. I strongly support the Air Force proposal for KC-10 and C-5 acquisition to reduce these shortfalls in the near term. Concurrently, it will be important also that we pursue mid-term modernization and enhancement for both intertheater and intratheater airlift forces.

Attached is a preliminary analysis of the informal memorandum from the Congressional Budget Office (CBO). I hope it will be helpful to you during the Senate Armed Services Committee markup this week.

I appreciate the opportunity you afforded us to comment on these airlift issues. They must be resolved now so that we can act quickly to increase our airlift capability. We appreciate also your continued support on these programs to alleviate our currently severe shortfalls in intertheater and intratheater airlift capabilities.

Sincerely

J MES R. ALLEN,
General, USAF, Commander in Chief.

Attachment.

PRELIMINARY ANALYSIS OF CONGRESSIONAL BUDGET OFFICE (CBO) COMMENTS ON THE CONGRESSIONALLY MANDATED MOBILITY STUDY [CMMS]

CBO comment 1. "The current C-5 fleet with programmed enhancements (additional spares and aerial refueling) can generally meet the outsize cargo lift requirement during the first 15 days of most scenarios."

Response. By CBO's own calculations, the current C-5 fleet, with spares and aerial refueling, can accomplish only about half (51 percent) of day C+5 requirement to the Persian Gulf.

Airlift must project and support combat forces until sealift is effective. Substantial amounts of sealift do not arrive until approximately the end of the fourth week. By day C+20, outsize demands become greater as the first heavy division is scheduled to meet the threat.

Requirements to NATO by C+15 are more than double the capability of currently available in-flight refueled C-5s.

Fixation on the four scenarios of CMMS is a serious pitfall when trying to evaluate outsize lift requirements for "most scenarios." Requirements can and will change as the theater commander evaluates his situation. Such continual reevaluation could have significant impact on the relative requirements for outsize, oversize, and bulk capability. Airlift assets must meet the challenge of responsive mobility capability wherever and whenever they are tasked, regardless of the representative requirements postulated for analysis.

CBO comment 2. "The 35-40 percent outsized figure used during the hearing refers to all unit equipment over the entire force deployment. (CMMS Executive Summary, p. 26) Much of this outsized equipment deploys by sea."

Response. The 35-40 percent figure deals with the entire deployment and much of the outsize equipment does go by sea; however, much of it misses its required delivery dates by a week or more. Sealift does not deliver substantial amounts of cargo until the end of week four, with massive conventional sealift from the CONUS beginning during week five.

CBO's table, "Outsize Cargo Requirement vs C-5 Aircraft Capability," points out the outsize airlift shortfall for Scenarios II and III. During the first 16 days, an outsize shortfall exists for all CMMS scenarios.

Given a change in the threat, it may be necessary to airlift large pieces of equipment to a threat area sooner. Airlift provides the flexibility and capability to satisfy these changing needs.

We have addressed only the intertheater outsize requirement. In places like Iran/Persian Gulf, we may have to transport outsize cargo 600 miles or more via surface modes because of the lack of outsize intratheater airlift capability. Alternatively, and assuming suitable airfield availability, it may be necessary to divert intertheater airlift to the intratheater role for this purpose. Prepositioned equipment may be over 1,000 miles from the battlefield.

CBO comment 3. "The CMMS states that during the first 15 days deployment to the Persian Gulf '. . . is not constrained for lack of outsize capability but rather total capability.' (p. 5-15, para 5.11.2)"

Response. Figures contained in CBO chart entitled "Outsize Cargo Requirements vs C-5 Airlift Capability" show that this statement is not entirely correct. It is limited by outsize capability at C+5 (51 percent), C+10 (84 percent), and after C+20. There is no question that the Persian Gulf scenario is limited by total airlift capability.

The next sentence of the quoted paragraph in the CMMS reads: "By C+20 similarities end where this scenario requires larger amounts and heavier Army forces to meet the threat." It is imprudent to view airlift tasking and contributions as terminating on C+15.

CMMS offers substantial support (previously referenced) for outsize flexibility and efficiency while cautioning against imbalanced procurement of aircraft incapable of outsized lift.

CBO comment 4. "The requirement for an additional outsized airlift capability of 10MTM/day (44 C5s) is not supported by the analysis in the study. In fact, the study concludes that '* * * baseline oversize and bulk capacity could be substantially increased without adding any outsize capability. Achieving added capability by purchasing existing commercial freighters could be economical even considering the additional capacity needed to make up for the lack of austere field capability.' (CMMS Executive Summary, p. 26)"

Response. The entire paragraph must be cited in context to give the reader the rationale for an outsized airlift system. "Clearly the acquisition of an outsize system that also efficiently carries bulk and oversize cargo produces the greatest benefits." CMMS states that "In all cases except Scenario I, * * * at least half of the additional aircraft must have outsize cargo capability to avoid an outsized constraint."

Existing commercial freighters have limited military utility. Some of the oversize and most, if not all, of the outsize equipment must be disassembled, adding significantly to cargo handling times. Increased ground times; Manpower intensive; No value in intratheater role; Materials handling equipment must be prepositioned; No roll-on/roll-off capability; Limited compatiblity with existing ground support equipment; and No austere field capability.

Considering spectrum of conflicts that could require force deployment, it becomes clear that an outsize system that also carries bulk and oversized cargo provides the greatest flexibility and benefits to our airlift fleet.

CBO Comment 5. "The true contribution of sealift may not be realized in the CMMS. Sealift is not allowed to deploy until airlift deploys. The effect is that the airlift requirement may be overstated and the sealift capability understated."

Response. The nature of the U.S. decisionmaking process (and the scenarios postulated in CMMS) is clearly defined in the concept of commitment of U.S. forces. Prior to C-Day, no deployment activities are initiated for airlift or sealift. Organic lift assets—both air and sea—can be stood down or positioned prior to C-Day as existing mission requirements permit. Commercial shipping assets cannot be called upon prior to C-Day for deployment activities. By definition, deployment of forces begins on C-Day.

Suez Canal availability in conjunction with preloading of ships during warning time could accelerate closure by 5 to 7 days. Closure of the Suez after fast shipping (such as SL-7s) is well into the Mediterranean would significantly degrade the potential benefits of fast sealift. The increase in delivery time to circumnavigate Africa could add 1 to 2 weeks to the normal non-Suez transit time.

Chairman TOWER. Gentlemen, this concludes our hearing.

Mr. Secretary, we have submitted a number of questions for the record. It is essential to us that we receive answers in a timely fashion. Although our original schedule to take up the bill next Monday has slipped somewhat, we will certainly take it up no later than Monday a week. In any case, we would like to have these questions responded to as early as possible next week.

Mr. CARLUCCI. Yes, sir.

Chairman TOWER. We would, of course, appreciate it if those questions are responded to in full with whatever supporting data and details that are required.

Gentlemen, thank you very much.

[Questions, with answers supplied, follow:]

QUESTIONS SUBMITTED BY SENATOR HENRY M. JACKSON

LOCKHEED FIRM FIXED-PRICE PROPOSAL

Senator JACKSON. Secretary Carlucci, on September 24, 1981, Secretary of Defense Weinberger and Dr. DeLauer testified before the House Appropriations Committee that the Lockheed firm fixed price proposal for the procurement of 44 C-5Ns was $4.18 billion in fiscal year 1980 dollars or $95 million per plane in fiscal year 1980 dollars. It is my understanding that the present 5 Year Defense Plan will request $6.1 billion, or $122 million per plane, in fiscal year 1981 dollars.

Why has the projected cost of the C-5 program increased 28 percent in only 6 months?

ANSWER. The total estimated government cost for 50 C-5Bs remains at $6.1 billion in fiscal year 1981 dollars. Lockheed's offer for 44 aircraft was $4.18 billion (fiscal year 1980 $), $4.53 billion (fiscal year 1981 $). This equates to approximately $103 million/aircraft (fiscal year 1981 $). Lockheed's offer for 50 aircraft was $4.56 billion (fiscal year 1980 $), $4.93 billion (fiscal year 1981 $). This equates to approximately $99 million/aircraft (fiscal year 1981 $). Lockheed's offered price in constant dollars has not changed; however, in addition to the aircraft, the Air Force must also procure spares, support equipment, technical data, military construction, training equipment, etc. These ordinary and necessary other government costs represent the difference between the figures in the Lockheed proposal and the 5 Year Defense Program; they do not represent an increase in the cost of the C-5 program.

WHY WAS THE C-5 SELECTED

Senator JACKSON. Secretary Carlucci, during the fiscal year 1982 budget deliberations I am told that the Air Force provided the OSD internal budget committee with the following five-year plan funding profile for the C-X, which was scheduled for an IOC in 1987:

	Fiscal year—					Total
	1982	1983	1984	1985	1986	
R. & D	223.5	336.5	449.0	255.0	232.0	
Procurement	.5	148.5	1422.0	2127.0	2078.8	
Milcon						
Total	246.0	515.0	1871.0	2382.0	2316.0	7330.0

The C-5 funding profile provided to us this year is almost identical to that of the C-X, yet OSD witnesses and Secretary Weinberger in his letter to me of March 1st have stated that the C-5 was selected "when more money became available."

Since the IOCs of both aircraft are nearly identical, the funding requirement is nearly identical and the C-X is both an outsize inter- and intratheater aircraft, why was the C-5 selected?

ANSWER. The fiscal year 1987 IOC planned for the C-X in the fiscal year 1982 budget was based on an fiscal year 1981 contract award and full fiscal year 1982 funding. At the time the decision was made, Congress had deleted fiscal year 1982 C-X RDT&E funding, and even an fiscal year 1983 program start seemed doubtful. With either an fiscal year 1982 or fiscal year 1983 start, the C-X program could not productively spend early year funds at the level requested for the C-5.

Even so, it has been asserted that, with increased funding, delivery of the C-17 could occur within a year of that of the C-5, assuming substantial funding would be provided for an immediate start in fiscal year 1982. However, this schedule assumed a higher degree of concurrency (overlapping development and production) than would normally be acceptable to the Air Force and, we think, to Congress. Moreover, an additional allowance must be made for the initial training phase for the C-17 above that required for the C-5.

If we consider an fiscal year 1982 start for either aircraft, concurrency consistent with other programs, and a normal training period, we estimate that the C-5 will be operationally available about two to three years earlier than the C-17. Further, if

we assume an fiscal year 1982 start for the C–5 and an fiscal year 1983 start for the C–17, the difference in operational availability becomes 4 years.

OUTSIZE CAPABILITY

Senator JACKSON. To address questions on the need for outsize capability in strategic airlift, a Defense memorandum for the record dated March 30, 1982, and signed by James L. Johnson, appeared to state that only 6 to 18 percent of strategic airlift in the first 15 days of a contingency was outsize-capable. The memorandum stated that CMMS data for such capability was in error. The memorandum and its attachments provided no support for the percentages. Please provide detailed support for the 6 to 18 percent figures and explain what impact they have on the need for outsize airlift capability, and on the accuracy of the CMMS.

ANSWER. The statement of outsize capability referenced in this question was not part of Mr. Johnson's March 30 memorandum, but came from a separate paper. A table was provided that showed the cumulative tons required and delivered for the first 5, 10, and 15 days, the percent of cumulative requirement and delivery that was outsize. This table showed that the outsize capability varied from 6 percent (in the first 5 days of Scenario I) to 18 percent (over the first 15 days of Scenario II) of the total capability. All other percentages fall in that range.

These data were derived from CMMS computer runs for the fiscal year 1986 Baseline Force. The data on required total cargo closed at destination are taken directly from the computer runs reproduced in CMMS Volume III. Data on required total and outsized cargo delivered to the theater were developed by subtracting from each unit's required delivery date the appropriate number of days for marry-up and forward movement from CMMS Volume II Table C.11 for that unit's type and actual delivery mode. Requirements for total and outsize cargo for each unit were summed to get cumulative requirements at days 5, 10, and 15, and the percentage of total that was outsized was computed. These computations were done from files which are not included in CMMS Volume III. The work was done by computer because hundreds of individual units are involved. Data on total and outsized cargo deliveries were taken directly from the computer runs in Volume III.

The paper corrected a conclusion drawn in the CMMS Executive Summary; it did not say the CMMS data for outsize capability were in error. However, in developing an answer to question 9, it was discovered that the data reported in CMMS computer runs as outsized cargo in the aggregated requirements file and the C–5 deliveries file actually include the oversized and bulk filler cargo that would be a normal part of C–5 sorties that carry outsized cargo. The amount of outsized cargo alone cannot be determined from the CMMS runs. The computer model now in use in DoD does not report the data in this way. The CMMS baseline cases have been rerun on the new model and a revised table generated. Although the absolute values for requirements and deliveries change, the percentages remain within about the same range and the same conclusion can be drawn. The percentage of requirements that is outsized generally exceeds the percentage of deliveries that is outsized.

The revised table follows.

REQUIREMENTS AND CAPABILITIES FOR MOVING OUTSIZED CARGO CMMS FISCAL YEAR 1986 BASELINE FORCE

[Revised April 23, 1982]

	By C+		
	5	10	15
Scenario I and IV:			
Required cargo closed at destination (KT)	63	165	199
Required cargo delivered to theater (KT)	94	182	217
Percent of required deliveries that is outsized	25	21	18
Capability to deliver cargo to theater (KT)	18	35	56
Percent of capability that is outsized	8	13	14
Scenario II:			
Required cargo closed at destination (KT)	74	132	206
Required cargo delivered to theater (KT)	88	141	239
Percent of required deliveries that is outsized	18	13	12
Capability to deliver cargo to theater (KT)	18	47	73
Percent of capability that is outsized	13	14	16

REQUIREMENTS AND CAPABILITIES FOR MOVING OUTSIZED CARGO CMMS FISCAL YEAR 1986 BASELINE FORCE—Continued

[Revised April 23, 1982]

	By C+		
	5	10	15
Scenario III:			
Required cargo closed at destination (KT)	63	251	480
Required cargo delivered to theater (KT)	64	373	481
Percent of required deliveries that is outside	6	25	27
Capability to deliver cargo to theater (KT)	39	76	119
Percent of capability that is outsized	5	8	10

DOCUMENTATION ON DISSENTING VIEWS

Senator JACKSON. Mr. Carlucci, in a written response to the staff of the Senate Armed Services Committee, the Air Force stated that the document, "Department of the Air Force Airlift Enhancement Program," was not formally coordinated because the responsible ad hoc committee was functioning in the capacity of an advisory body to the Secretary of the Air Force.

What documents, if any, reflected the dissenting views which may have been useful to the Secretary but were not reflected in the ad hoc committee's document?

ANSWER. The representatives from OSD, JCS, Army, Navy and Air Force participating in the ad hoc Advisory Committee did not present to the Committee Chairman any documents reflecting dissenting views, and none were presented to the Secretary.

EXPLANATION OF AIR FORCE STATEMENT

Senator JACKSON. In its written statement to the staff of the Senate Armed Services Committee the Air Force said that the CMMS does not conclude that additional airlift beyond 20 million ton miles per day "would provide little or no improvement in effectiveness." Please explain this statement in view of the following CMMS statements (Program A = 20 MTM/D airlift, Program = 35 MTM/D airlift, both with associated sealift and prepositioning improvements.).

(a.) Scenario I: "* * * Program B does only marginally better than Program A * * *"

(b.) Scenario II: "If maritime prepositioning ships had been assumed to sail on warning and the Suez Canal had been assumed open, Program A would better meet the demands for Scenario II. Under these same circumstances, Program B would perform only marginally better."

(c.) Scenario III: "Both programs do about equally well in meeting the demands of Scenario III * * *"

(d.) Scenario IV: "Both programs * * * perform about the same in Scenario IV."

ANSWER. The Air Force statement to the Committee is accurate. As shown in the table below, reproduced from the CMMS, Program B, which included Program A plus 15 MTM/D of additional airlift and 170,000 tons of additional RO/RO sealift, reduced the weighted tonnage shortfall more than Program A in every scenario.

RESULTANT SHORTFALL

[Millions of weighted tons]

Program	Scenario I	Scenario II	Scenario III	Scenario IV
1986 base line	4.55	12.76	7.06	19.34
Program A	2.87	3.94	4.59	2.16
Program B	1.85	2.81	3.66	1.61
Program excursion	3.05	6.12	4.58	2.38

But when the estimated costs of Program B were measured against the costs of Program A, CMMS analysts found that the additional costs of Program B far outweighed the additional benefits provided, for some scenarios considered.

LEAST DEMANDING SCENARIO

Senator JACKSON. Mr Carlucci, the Air Forces stated in its response to the staff of the Senate Armed Services Committee that 40 MTM/D of airlift and commensurate prepositioning and sealift will meet the full requirement of the least demanding scenario.

Please provide detailed support for this statement. Which is the least demanding scenario? What is the quantity of "commensurate prepositioning and sealift"?

ANSWER. The "least demanding scenario" was based on CMMS Scenario I, a regional conflict in Southwest Asia. The Air Force assumed that 95,000 tons of two Marine Maritime Prepositioned Brigades and 48,100 tons of ammunition resupply would be prepositioned. We additionally assumed that the Army's corps combat service support, weighing 94,000 tons, would be delivered by sealift.

We then considered those remaining early movement requirements occurring before the earliest possible arrival of sealift in the scenario. Since only airlift could meet these early RDDs, we examined varying airlift mixes needed to satisfy all of them. Among the possible solutions were: 224 C–5Bs or; 100 C–5Bs, 100 B–747 freighters, and 42 KC–10s.

Each of these packages theoretically provides approximately 40 MTM/D of airlift capacity.

AMOUNT OF ADDITIONAL AIRLIFT

Senator JACKSON. Mr. Carlucci, in its response to the staff of the Senate Armed Services Committee, the Air Force stated that the CMMS recommended level of airlift, with additional sealift and prepositioning, will meet the Administration's goal as stated in the Department of the Air Force Airlift Enhancement Program paper.

Since the CMMS recommended 20 MTM/D and the current proposal includes 13.1 MTM/D, does this mean that 6.9 MTM/D of additional organic airlift, with proposed civil fleet enhancements, is the remaining airlift needed to fulfill shortfalls towards meeting the Administration's goal?

ANSWER. No. You will recall that the CMMS recommendation assumed that we would have added, by 1986, about 5 MTM/D capacity through the CRAF Enhancement Program. Thus, the full CMMS recommendation is 25 MTM/D. Furthermore, the current DoD program would provide 17 MTM/D, leaving a shortfall of about 8 MTM/D.

CUMULATIVE OUTSIZE CARGO CLOSED IN THEATER

Senator JACKSON. In a response to the staff of the Senate Armed Services Committee to the following question, the Air Force provided a table which appears to show total cargo including that carried by sea. Please provide the data which shows the additional cargo carried by air. Also please provide the data in terms of millions of ton miles per day.

"The CMMS included analyses which, among other things, measured cargo flow with 20 million ton-miles per day airlift capability added to a 1986 baseline. How much of the additional cargo carried was outsize for each scenario, in 15-day increments? Were these 'ton-mile per day data' used to determine the recommended 10 million ton-miles per day of outsize airlift capability? If not, what was used to support the recommendation?"

ANSWER. In developing an answer to this question, it was discovered that the data reported in the CMMS computer runs is outsized cargo in the aggregated requirements file and the C–5 deliveries file actually include the oversized and bulk filler cargo that would be a normal part of the C–5 sorties that carry outsized cargo. The amount of outsized cargo alone cannot be determined from the CMMS runs. The CMMS baseline cases have been rerun on the new model and three revised tables generated: (1) showing outsized cargo delivered to final destination, which can be compared to the requirements in CMMS Volume II; (2) showing outsized cargo delivered to ports of debarkation in the theater, and (3) converting the tons delivered to average million ton-miles per day for each time period of outsized airlift capability actually achieved in the computer simulations. This table is based on the cumulative data in Table 2.

Million ton miles per day is a convenient way of expressing a hypothetical capability of a fleet of aircraft but it is not a statement of expected capability in any particular scenario. It is calculated by multiplying the following attributes for each aircraft and summing over aircraft types: inventory, payload, utilization rate (hours per day), blockspeed and a productivity factor. A common payload for such a calculation is 75 percent of maximum allowable cabin load. This method was used to de-

scribe the various force levels examined in CMMS. It is useful in describing a generic amount of airlift or in placing several different aircraft types on a common basis, but it is not a good predictor of actual capability.

Actual capability is subject to many variations in the attributes that make up the MTM/D calculation, particularly in payloads. The computer modeling in CMMS accounted for the variability in aircraft payloads due to different densities in unit equipment payloads. Because of variations in payloads and variations in the time phased requirements for forces, detailed computer modeling is needed to evaluate the capability of an existing or proposed airlift fleet (along with sealift and prepositioning) to meet the force movement requirements. This method was used to evaluate various force levels in CMMS.

Table 3 expresses the data in Table 2 in MTM/D by multiplying the data in Table 2 by the average distance to the theater and dividing by the number of days. It shows the MTM/D of outsized airlift actually achieved in each of the CMMS scenarios.

TABLE 1.—IMPACT OF ADDITIONAL OUTSIZED-CAPABLE AIRCRAFT IN CMMS SCENARIOS

[Revised April 23, 1982]

	Outsized cargo delivered to final destination (tons)			
	1986 baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I:				
5	798	[1] 471	[1] 471	[1] 754
10	3,358	4,770	6,070	7,498
15	6,988	8,000	10,421	13,215
30	15,839	30,444	32,505	38,025
45	16,537	30,444	32,505	38,025
Scenario II:				
5	434	724	724	[1] 601
10	3,858	6,090	7,415	8,463
15	11,631	11,798	13,157	14,000
30	18,275	24,663	23,562	29,275
45	21,541	33,356	48,497	67,967
60	21,541	33,356	48,497	72,743
Scenario III:				
5	1,854	2,442	2,581	3,609
10	2,495	4,005	4,205	4,829
15	7,504	17,042	19,944	24,358
30	36,538	45,823	47,649	58,184
45	47,257	57,003	61,842	68,199
60	65,992	[1] 63,008	67,624	72,229
Scenario IV:				
5	798	[1] 471	[1] 471	[1] 754
10	3,358	4,770	5,097	7,498
15	6,988	8,000	8,184	13,352
30	17,211	32,000	29,989	42,148
45	36,135	72,260	63,329	79,507
60	57,139	101,874	86,844	116,190

[1] The addition of outsize capable airlift can alter the order in which units are moved. This produces faster unit closures although the outsize cargo moved in a specific time period may be reduced.

TABLE 2.—IMPACT OF ADDITIONAL OUTSIZE-CAPABLE AIRCRAFT IN CMMS SCENARIOS

[Revised April 23, 1982]

	Outsized cargo delivered to theater (tons)			
	1986 baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I:				
5	1,390	1,925	3,004	3,355
10	4,540	6,906	7,333	8,000
15	8,000	15,111	20,351	23,193

TABLE 2.—IMPACT OF ADDITIONAL OUTSIZE-CAPABLE AIRCRAFT IN CMMS SCENARIOS—Continued

[Revised April 23, 1982]

	Outsized cargo delivered to theater (tons)			
	1986 baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D
30	16,537	30,444	32,505	38,025
45	16,537	30,444	32,505	38,025
60	(1)	(1)	(1)	(1)
Scenario II:				
5	2,384	5,321	5,321	[1] 5,198
10	6,513	10,333	10,799	11,536
15	11,631	15,935	16,883	17,788
30	18,801	28,239	30,546	37,924
45	21,541	33,356	48,497	72,339
60	21,541	33,356	48,497	72,743
Scenario III:				
5	1,854	2,442	2,581	3,609
10	6,451	11,399	13,916	14,652
15	11,480	28,394	30,149	32,429
30	39,221	47,775	49,707	61,924
45	53,277	58,253	63,141	71,128
60	66,703	[2] 63,008	67,624	72,229
Scenario IV:				
5	1,390	1,925	3,004	3,442
10	4,540	6,906	6,906	8,000
15	8,000	15,111	13,235	23,330
30	19,102	39,699	35,684	47,380
45	39,391	72,780	63,347	80,985
60	62,504	110,661	86,844	116,190

[1] Deployment completed by C+45.
[2] The addition of outsize capable airlift can alter the order in which units are moved. This produces faster unit closures although the outsize cargo moved in a specific time period may be reduced.

TABLE 3.—IMPACT OF ADDITIONAL OUTSIZE CAPABLE AIRCRAFT IN CMMS SCENARIOS

	Average daily million ton miles per day			
	1986 baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I:				
5	2.00	2.77	4.33	4.83
10	3.27	4.97	5.28	5.76
15	3.84	7.25	9.77	11.13
30	3.97	7.31	7.80	9.13
45				
60				
Scenario II:				
5	3.43	7.66	7.66	[1] 7.49
10	4.69	7.44	7.78	8.31
15	5.58	7.65	8.10	8.54
30	4.51	6.78	7.33	9.10
45	3.45	5.34	7.76	11.57
60				873
Scenario III:				
5	1.15	1.51	1.60	2.24
10	2.00	3.53	4.31	4.54
15	2.37	5.87	6.23	6.70
30	4.05	4.94	5.14	6.40
45	3.67	4.01	4.35	4.90
60	3.45	[1] 3.26	3.49	3.73
Scenario IV:				
5	2.00	2.77	4.33	4.96
10	3.27	4.97	4.97	5.76
15	3.84	7.25	6.35	11.20

TABLE 3.—IMPACT OF ADDITIONAL OUTSIZE CAPABLE AIRCRAFT IN CMMS SCENARIOS—Continued

	Average daily million ton miles per day			
	1986 baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D
30	4.06	8.88	7.38	10.44
45	4.10	8.26	6.83	9.28
60	4.27	8.15	6.33	8.78

[1] The addition of outsize capable airlift can alter the order in which units are moved. This produces faster unit closures although the outsize cargo moved in a specific time period may be reduced.

RESULTS OF ADDING 13 MTM/D OF OUTSIZE AIRLIFT

Senator JACKSON. In a response to the following question, the Air Force stated that CMMS data are not available for additions of 13.1 million ton miles per day. Please explain why the computer model used for the CMMS study cannot be used now to answer the question.

"The ad hoc committee recommended adding only 13.1 million ton miles per day of organic airlift to the 1986 baseline. Using CMMS methodology as in (question 6 above), please identify the additional quantity of outsized cargo which would be moved with the lower levels of airlift enhancement."

ANSWER. The particular computer model used in CMMS is no longer in use in DoD. However, in preparing a response to question 9 it was necessary to rerun all the CMMS Scenarios on the computer model now in use; and a case that added 13 MTM/D of outsized airlift to the fiscal year 1986 Baseline Force was also run. The attached table corresponds to the table of deliveries to the theater provided in question 9. The results do not represent the DoD program which adds 8 MTM/D of outsize and 9 MTM/D of oversize/bulk, not 13 MTM/D of outsize. The DoD program also prepositions much of the bulk cargo in the early days of the CMMS deployment sequences, as recommended in CMMS.

Impact of adding 13 MTM/D of outsize-capable airlift to the CMMS fiscal year baseline force—outsize cargo delivered to theater (tons)

Scenario I:	
5	2,843
10	7,325
15	17,535
30	32,505
45	32,505
60	
Scenario II:	
5	5,333
10	10,696
15	16,465
30	26,693
45	48,048
60	48,048
Scenario III:	
5	2,537
10	13,246
15	29,713
30	48,863
45	56,179
60	58,808
Scenario IV:	
5	2,843
10	7,325
15	17,535
30	43,831
45	75,985
60	107,630

DOD GOAL FOR MOBILITY FORCES

Senator JACKSON. In a response to the following question, the Air Force stated that the data cited was valid only for CMMS Scenario IV. The GAO briefing paper also stated this. Does Scenario IV represent the Administration's goal? If not, what

are the differences from the goal stated in the paper entitled, Department of the Air Force Airlift Enhancement Program?

"CMMS data indicate that, when airlift enhancement is reduced from 20 million ton miles per day to 15, oversize, main airbase capability becomes more effective than outsize, austere airfield capability in near-term efforts to meet the Administration's goal. Why is the Defense proposing to buy outsize aircraft in the near-term?"

ANSWER. Our mid-term goal is to be able to deploy a large RDJTF to Southwest Asia and then to reinforce NATO and key areas in Northwest Asia should the conflict spread. This is the goal referred to in the Air Force's paper. (The variations in wording are not significant.) CMMS Scenario IV is the scenario that most nearly resembles our goal. However, it began to deploy a small RDJTF to SWA and, after a somewhat shorter interval than is incorporated into the DOD goal, began a precautionary reinforcement of NATO in a benign environment. (A more specific statement of the differences would be classified.)

COMPARISON OF CMMS AND OPERATIONS PLANS DATA

Senator JACKSON. Table C.10 in the CMMS shows that the percentage of outsize cargo weight in C–5 payloads can vary from 62 to 98 percent, depending on the type of military unit airlifted. For approved operation plans for major contingencies in Europe, Southwest Asia, and the Pacific, what percentages of C–5 cargo are bulk, oversize, and outsize, in 15-day increments? To the extent that currently planned percentages are not within the CMMS range above, please account in detail for the differences.

ANSWER. Operations plans are not developed in sufficient detail to answer this question. The data in Table C.10 are derived by using an aircraft loading model that puts as much outsized cargo as possible aboard each aircraft. Low percentages of outsized cargo result when the outsized items in a unit are not particularly dense (e.g., helicopters). Similar models are used to estimate sortie requirements in the development of operations plans. We have discussed this question with MAC to see what analysis methods might produce the requested information and they estimate that several weeks and perhaps months would be needed. Moreover, comparison of existing operations plans with CMMS data would not be proper since operations plans are made for existing unit equipage, existing airlift aircraft capabilities (spares, stocks, etc.) for the purpose of optimizing response to the theater CINC. Whereas CMMS is for a 1986 baseline against scenarios prepared specifically for the CMMS.

DIFFERENCES IN METHODOLOGY

Senator JACKSON. Mr. Carlucci, the Air Force decision paper stated that 44 PAA C–5 aircraft can provide 8.1 million ton-miles of lift, or somewhat less than the CMMS recommended buy. The CMMS stated that 44 C–5 aircraft can provide 10 million ton-miles per day of lift, the same as the CMMS recommendation for outsize lift capability.

Please provide a detailed explanation of the differences in methodology used in arriving at the above capability data.

ANSWER. The example in CMMS of 44 C–5 aircraft providing 10 million ton miles per day (MTM/D) was based upon an average payload of 75 percent of maximum allowable cabin load (ACL). This was done as an attempt to characterize airlift alternatives for summary purposes. However, the actual average payloads used in deployment simulations for CMMS were not that high for the C–5. The 8.2 MTM/D figure was derived from a 75 ton average payload, which represents the non-aerial refueled C–5 payload in CMMS Scenario I. The number of ton miles per day produced by an airlift fleet is highly scenario dependent, since it is a direct function of the density of the cargo to be moved.

C–17 AND C–5 PROGRAM RISK

Senator JACKSON. In response to the staff of the Senate Armed Services Committee the Air Force stated that the C–17 would have more risks than the C–5 production because the C–17 schedule was based upon a commercial development approach rather than a phased development typical of government programs. McDonnell-Douglas has informed the Air Force that the C–17 program is essentially a no-risk program because of the warranty provisions which were part of the offer.

ANSWER. There are several types of risk inherent in any program which requires development. When concurrency exists, as is typical of commercial development there is a risk that changes found to be required in the design by testing will re-

quire retrofit of production models. This risk, among others, is covered by the incentive fee arrangements which in the case of the C–17 contract would cease government involvement after the target of 135 percent of cost was reached. While the risk inherent in the C–17 development was thought to be low it would still be higher than the C–5. The warranties offered by McDonnell-Douglas would have offered reimbursement if the final production model did not perform to original specifications but would not limit the cost risk to the government of the development program itself. Again it should be stated that all these risks are thought to be low for the airlift programs we are examining as long as too much concurrency is avoided.

Senator JACKSON. (a) Why is the somewhat earlier availability of the C–5—one year to 18 months—considered advantageous now, while it was not during an earlier Air Force evaluation?

(b) Why is the commercial development approach considered so risky when it apparently works well in the commercial sector and in the present case the risk appears to have been offset by warranties?

ANSWER. (a) During the earlier Air Force evaluation, new production C–5's were estimated to be available about a year earlier than C–17s. During the fiscal year 1983 budget review several alternatives were considered, including assignment of higher priority and increased funding to airlift augmentation to meet an urgent and compelling need. With increased near term funding available it was determined that considerable acceleration was feasible for the C–5 but not very much for the C–17 since it is a new development. The C–5B is currently estimated to be available four years earlier than the C–17.

(b) There are several types of risk inherent in any program which requires development. When concurrency exists, as is typical of commercial development there is a risk that changes found to be required in the design by testing will require retrofit of production models. This risk, among others, is covered by incentive fee arrangements which in the case of the C–17 contract would cease government involvement after the target of 135 percent of cost was reached. While the risk inherent in the C–17 development was thought to be low it would still be higher than the C–5. The warranties offered by McDonnell-Douglas would have offered reimbursement if the final production model did not perform to original specifications but would not limit the cost risk to the government of the development program itself. Again it should be stated that all these risks are thought to be low for the airlift programs we are examining as long as too much concurrency is avoided.

IMPACT OF THE INCREASE IN ESTIMATED FISCAL YEAR 1984 FUNDS

Senator JACKSON. Mr. Carlucci, according to the Air Force's explanation of its decision to acquire the C–5s and KC–10s, the C–5 acquisition program was estimated to cost about $8.160 billion, exclusive of initial spares, spare parts, personnel, operation and maintenance, and military construction. According to the Aeronautical Systems Division the $8.160 billion program estimate, because of the latest inflation index, has increased to $9.136 billion (a $976 million increase) as of March 1, 1982. This represents a $77 million increase over funds requested in the President's budget for fiscal year 1983 and a $199 million increase in the estimated funds for fiscal year 1984.

a. What impact will the increase in funds required have on the C–5 delivery schedule?

b. What is the total estimated cost for all elements of the C–5 program?

ANSWER. The total estimated cost of the 50 C–5B acquisition program (including spares, support equipment, technical data, military construction, etc.) remains $6.1 billion in fiscal year 1981 dollars. Changes in inflation estimates will necessarily cause variations in projected (then-year dollars) funding requirements. However, since Lockheed and Department of Defense inflation estimates differ, since inflation estimates are continually subject to change, and since formal negotiations on the C–5B contract have not yet begun, it is not certain whether the additional funds identified by the Aeronautical Systems Division are actually required. If increased (then-year dollar) funds are actually required and cannot be made available, a slight delay in delivery schedules will result.

NAMES OF STUDY PERSONNEL WITH DATES

Senator JACKSON. Mr. Carlucci, in response to a question regarding the decision to acquire the C–5 based on its early availability, the Air Force stated to staff of the Senate Armed Services Committee that Lockheed's capability to produce the C–5 was evaluated. The Air Force cited a study of personnel, facilities, tooling and manufacturing readiness done during the C–X competition as showing that Lockheed's

manufacturing readiness was adequate for the program they proposed; however, Air Force personnel knowledgeable of C–X source selection activities review of the scope stated above was planned for the C–5, the study was not conducted.

(a) Please provide the names of the study personnel, dates when the study was performed and completed, and the report or documentation showing results of the cited study. Specifically, what were the individual findings on personnel, facilities and tooling?

(b) If such a study (above) was not done, how does the Air Force intend to assure that Lockheed has the capability to produce the C–5 as proposed prior to contracting with Lockheed?

ANSWER. (a) During the C–X source selection, a Manufacturing Management/Production Capability Review (MM/PCR) was conducted at the Lockheed Georgia Company to evaluate the company's capability to produce its C–X candidate aircraft. A second review has been scheduled to evaluate the company's capability to produce its C–5 Derivative proposal; however, that review was not conducted. Prior to that review, the C–5 Derivative proposal was determined to be inadequate to meet the requirements of the C–X Request for Proposal (RFP) and all evaluation efforts were suspended. Subsequently, the C–5 Derivative was determined by the Source Selection Authority to be outside the competitive range and was, therefore, eliminated from the C–X competition.

(b) Discussions are underway with Lockheed on their unsolicited proposal. The Air Force intends to issue a preliminary production contract for production start-up and long lead during the 3rd quarter of fiscal year 1982FY82 after resolution of issues in the unsolicited proposal. The purpose of the preliminary contract will be to protect the delivery schedule offered by Lockheed. Approximately 6 months after release of the preliminary contract a fully definitized contract will be awarded which will contain firm fixed price options for the 50 C–5B aircraft.

Prior to awarding a preliminary production contract, the following activities will be completed to provide reasonable assurance that Lockheed can produce the C–5B:

(1) A tooling survey to compare tools required and tools available.

(2) An audit of prime contractor proposed manhours.

(3) An analysis of facility requirements (based on known programs at Lockheed, including C–5 Wing Mod, C–130 and C–141B) and existing facilities at Lockheed Georgia Company and subcontractor locations.

(4) Analysis of manpower resources available to support the C–5B production. Information gained during the Lockheed C–X MM/PCR indicates that the manpower needed to produce a large, wide body airlift aircraft will be available in the Lockheed Georgia Company area. Though C–X data, the information is considered relevant to the C–5B as a preliminary evaluation, but the specific results of the study are subject to Source Selection release restrictions.

Prior to awarding a definitized full-production contract, the Air Force will conduct a complete manufacturing survey, expanding upon the above items through inspections and in-depth analysis, as necessary.

(c) C–5 production tooling is currently maintained by AFLC under 12 maintenance contract/locations with 48,291 items. These items are periodically inspected and information on their condition updated to insure compliance with the maintenance contracts.

SUPPORT C–17

Senator JACKSON. General Vessey, did you support the Army recommendation of the C–17? Why, or why not?

General VESSEY. Yes. The C–17 aircraft was a result of both the Army and the Air Force detailing their requirements for airlift. The C–17 answered all of our airlift requirements, even the tough ones like intratheater outsized small austere air field operations [SAAF], Low Altitude Parachute Extraction System Operations [LAPES], and outsized airdrop.

C–5 UTILITY SAME AS C–17

Senator JACKSON. General Vessey, does the C–5 have the same military utility as the C–17?

General VESSEY. No. It does not. Had the C–5 been able to meet all the Army's Airlift needs, the C–17 program would not have been necessary. The C–5 still leaves a void in such necessary airlift operations as small austere airfield operations (SAAF), intratheater outsized airlift, Low Altitude Parachute Extraction Systems, and rapid climb and descent capability for enhanced survival.

INTRATHEATER OUTSIZE PROBLEM

Senator JACKSON. Isn't it the Army's view that the intratheater outsized problem is the major problem in deployment for potential NATO-Warsaw Pact conflicts?

General VESSEY. In a NATO-Warsaw Pact conflict, mobility and deployment shortfalls go well beyond the intratheater outsize problem. The Army today is faced with POMCUS shortages and inadequate strategic airlift and sealift assets, which seriously restricts our ability to even get to the NATO theater. The intratheater outsize problem is critical for any contingency and one which needs to be addressed when developing a comprehensive, overall airlift program for the future.

C-17 COMPARED TO C-5

Senator JACKSON. General Vessey, how many elements of the C-17 mission element-needs statement does the C-5 satisfy?

General VESSEY. The C-5 meets most of the requirements in the Mission Element Needs Statement as outlined for the CX/C-17, and primarily it answers our need for more outsized intertheater airlift. However, the critical areas that the C-5, and for that matter the Airlift Enhancement Decision (C-5/KC-10), does not meet our intratheater outsized airlift, outsized Low Altitude Parachute Extraction, routine operations from small austere airfields (direct air delivery), aerial maneuverability for support of tactical operations and non-lethal defensive measures to increase survivability.

The C-17 was specifically designed to meet these requirements and was considered for some additional missions such as Marine Corps aerial tanker and use in C^3I missions (Aerial Command Posts).

TACTICAL OUTSIZE AIRLIFTER

Senator JACKSON. Do you honestly believe that the Army will ever get a tactical outsize airlifter if the C-5 production line is restarted?

General VESSEY. With the approval of Congress, the USAF plans to reprogram the $32 million fiscal year 1981 C-X appropriation for use in fiscal years 1982/83 to continue the research and development effort for the C-17 aircraft. This effort will also preserve the option of initiating a C-17 development program in fiscal year 1984 as part of a long term airlift acquisition plan.

The Army supports that initiative, and will continue to provide our views to the Air Force and OSD on the need to acquire an outsized airlifter capable of intratheater operations. We consider this capability a critical wartime airlift requirement, and are hopeful that a suitable aircraft will be developed in the near future.

Senator JACKSON. Won't the pressures be to continue to produce more C-5's, after the initial 50, to meet outsize intertheater uses?

General VESSEY. With 50 additional C-5's, we gain approximately 8.3 million ton-miles-day outsize intertheater airlift capability. This approaches the Congressionally Mandated Mobility Study recommendation of at least 10 million ton-miles-day additional outsize airlift. The Army does not envision the purchase of more C-5's. We forsee and support the development of an aircraft that will provide both inter and intratheater outsize airlift capability. We will continue to work with the U.S. Air Force and OSD to develop such a future airlift program.

INTRATHEATER OUTSIZE CAPABILITY

Senator JACKSON. General Vessey, Allen and Kelley, isn't a lot of the supposed gain in outsize capability from purchasing additional C-5s negated by the lack of an intratheater outsized capability?

General VESSEY. The C-5 cannot use as many airfields as the C-17, but it can use more than the B-747. The C-5 aircraft helps solve the principal strategic airlift shortfall-intertheater outsize airlift.

General ALLEN. No. Positioning outsized combat equipment into the theater by air vice by sea or overland significantly reduces response time and rapidly enhances the theater CINC's fighting capability. This accomplishes the first step of combat force projection. Intratheater movement of that equipment can then be accomplished via the ground transportation system where available or under the equipment't own power, if self-propelled. Although this ground movement is much slower and is not as flexible as airlift, at least it is possible. Intratheater outsized airlift reduces re-

sponse time, increases flexibility, and may be the deciding factor in countering a threat within a theater.

General KELLEY. Not necessarily. We need outsized inter-theater airlift to deliver designated Marine combat forces into the theater in time, with unit cohesion and without excessive requirements for reconfiguration. Subsequent employment to forward positions is heavily scenario-dependent. Intra-theater lift could consist of airlift, sealift, cross-country movement—or a combination. Intra-theater lift is an important issue of concern to us and needs to be addressed in future airlift development programs. The first requirement, however, is to get our forces into theater, intact. That's why we need the additional C–5s.

EARLY DELIVERY OF OUTSIZED EQUIPMENT

Senator JACKSON. Doesn't more outsized equipment need to be delivered earlier to the rear airports to achieve closure at the forward operations area?

General VESSEY. Unit equipment, regardless of cargo type, will be delivered as close to the unit's final destination as feasible to speed closure time. Intertheater capable aircraft will use all available airfields for delivery of cargo. Delivery schedules are normally based on backward planning which consider offloading and marry-up of equipment and intratheater transit time so that unit arrives in the time period prescribed by the theater commander.

General ALLEN. Yes. To achieve unit closure, forward movement time is considered in the overall delivery equation.

General KELLEY. Not necessarily. One of the most beneficial products of the new Joint Deployment Agency is its ability to assess such factors and produce well-coordinated Time-Phased Force Deployment Lists (TPFDLs) which are designed to avoid queuing at the reception airfield and permit rapid forward processing to meet required closure dates. We do not foresee any requirement to alter Marine Corps force lists because of the different locations of reception airfields and forward positions.

MIX OF OUTSIZED EQUIPMENT

Senator JACKSON. Isn't more outsized equipment needed with the ability to haul tanks and other tracked vehicles due to the longer closing distances? That is the mix of outsized equipment even changes, isn't that correct?

General VESSEY. Yes. Generally more outsize intratheater capability, both surface and air, is needed if major airfields and seaports are not near the final destination. The intratheater distance, availability of host nation transportation assets and unit organic transportation capability directly affect the time-phased requirements for the type and number of transportation limits, including outsize airlift, needed to support operations.

General ALLEN. The transportation assets needed to move ground forces forward is scenario dependent. Factors to be considered are distance from major airports and seaports to forward location and available host nation support, such as in Europe. Tracked vehicles can move forward on their own power, although this may not be desirable for long distances. All these factors are considered when developing a force deployment list of equipment.

General KELLEY. Incorrect as far as the Marine Corps is concerned. Again, we do not foresee any requirement to alter our force lists based on the difference in location between the reception airfield and forward positions. The mix of outsized Marine Corps combat equipment to be deployed by strategic outlift is tailored to accomplish the assigned mission. If the requirement for subsequent employment of the Marine Air Ground Task Force (MAGTF) involves overland movement, then our tanks and other tracked vehicles would simply be driven to the objective by their crews. We do not envision deploying transporters in contingency situations.

Senator JACKSON. Isn't the congestion at the major rear airfields increased by additional C–5s so that even more distant airfields are required to be utilized further exacerbating the early delivery requirements and the length of supply lines for outsized deliveries?

General VESSEY. The C–5 is capable of using more airfields than the B–747. Also, the C–5 is designed for more rapid unloading of equipment in austere environments to reduce congestion.

CONGESTION OF MAJOR REAR AIRFIELDS

General ALLEN. Congestion at major rear airfields is increased by the addition of any large aircraft. The amount of congestion and any aircraft diversions required by

the addition of C–5's is dependent upon the scenario and the number of additional aircraft. Based upon the parking saturation analysis done in the CMMS, the addition of 50 C–5's would not cause aircraft diversions for Scenario I, however in Scenario II, the addition of any aircraft above the baseline which does not have small austere airfield direct delivery capability would increase diversions. Given the capability of the C–5 to use more airfields than the Boeing 747, any likelihood of C–5 diversions would be less than that for the 747. In addition, the high flotation landing gear of the C–5 may allow it to taxi off prepared surfaces where feasible, which could relieve some congestion.

General KELLEY. The additional C–5 capability during time phased deployments would maintain a constant rather than sporadic flow to major airfields. A constant flow facilitates the early delivery of essential combat equipment. The length of the supply lines is taken into consideration when executing deployments. The movement to theaters is intensely managed by the Joint Deployment Agency (JDA) to insure nonsaturation of arrival airfields.

ESTIMATES FOR SCENARIOS I AND II

Senator JACKSON. Please provide estimates for Scenarios I and II how much these 3 factors decrease the effective capability added by the 50 additional C–5s to close outsized equipment compared to an equal TMI/D addition of C–17s.

General VESSEY. There is approximately a 7–15 percent gain in productivity with the C–17 in a direct delivery role.

General ALLEN. The CMMS made an assessment of the value of direct delivery airlifters (C–X) to avoid transshipment from major airfields in the rear to the forward operating locations of ground units. The time saved by direct delivery is equal to the time required to close material between port and forward location plus the transshipment time avoided by not transiting the port. The CMMS analysis showed a 7- to 15-percent productivity advantage for direct-delivery in Scenarios I and II. In addition, the ability of the C–X (C–17) to provide routine intratheater movement of all types of cargo and the reduced congestion/diversions at major airfields because of its smaller size and ground manuverability would further increase its productivity in comparison to an equal TM/D addition of C–5's.

General KELLEY. Marine Corps requirements for strategic airlift in support of both scenarios I and II of the CMMS are largely dedicated to delivery of the airlifted echelons of the Near Term Prepositioned Force (NTPF) and Maritime Prepositioned Ships (MPS) brigades into the theater. Maritime prepositioning introduces a different concept to airlift requirements. In this case, "rear airfields" are more desirable than forward sites because of the requirement to marry the troops with their prepositioned combat equipment as it is offloaded at the seaport. The requirement is thus for a capable airfield proximate to the seaport, which, in the CMMS, is afforded in both scenarios.

Outsized airlift is required in both scenarios to deliver the heavy and medium assault helicopters, air defense and air control equipment of the two maritime prepositioning brigades.

Under different scenarios involving airlift of other Marine combat forces, the C–17 offers attractive advantages in terms of its ability to use unimproved airstrips and meet both inter-theater and intra-theater combat forces.

OUTSIZED AIRLIFT—HTTB

Senator JACKSON. General Vessey, in recent Army responses to Senator Nunn's questions the outlook for outsize was discussed as follows: There is conscious effort by the Army to reduce the dependability requirement on outsized airlift for the light divisions in the force structure. The High Technology Test Bed—the 9th Infantry Division, Ft Lewis, Washington—has been tasked by CSA to develop a high technology light division that has significantly increased lethality while at the same time reducing its outsized lift requirements. There will, however, probably be an increase in oversize lift requirements. The project is too new to provide hard information on outsized airlift reductions at this time, but indicators are that they are moving in the right direction. Lighter and smaller equipment that is derived from the HTTB will be exported to other divisions, heavy and light, as appropriate.

If the program for lighter and smaller equipment for light divisions is successful, wouldn't this reduce the trend to increase outsize requirements in the Army's divisions?

General VESSEY. The programs that are referred to are focused on the equipment for the High Technology Light Division, Infantry Divisions, and the Airborne and Air Assault Divisions. If it proves feasible we may use some of the lighter equip-

ment in the heavy divisions; it is too early to tell. But, we do not foresee any reduction in the overall lift requirement for outsize cargo in the near future.

MILITARY READINESS

Senator JACKSON. I am told that the typical cost for all of the equipment for an Army division is 1.8 billion dollars. Since this cost is equal to the price of 15 C-5s and using current operational approaches would require 78 days for these same C-5's to deliver this equipment to NATO theaters, isn't it far more cost effective and prudent from a military readiness point of view to stockpile sufficient equipment in NATO countries to meet any threat and sustained operations until reinforcement by sealift is possible?

General VESSEY. The cost to purchase equipment for Army divisions ranges from $1.4 billion to $2.3 billion, depending on the type division. This cost does not include any of the nondivisional support equipment each division requires.

To compare airlift costs with pre-positioned equipment costs could be misleading. Strategic airlift provides the flexibility to deploy Army units in various contingencies worldwide, where pre-positioning limits the option of using that firepower in basically only one geographical region. The Army is committed to providing a 10 division force to NATO after 10 days of mobilization through a combination of four forward deployed divisions and POMCUS. As you know, the Army plans to complete the fill of 6 POMCUS division sets in NATO. Programmed air and sea lift improvements and continued fill of POMCUS should significantly improve our ability to reinforce NATO. Therefore, it may not be prudent, at this time, to expend the additional billions of dollars for more POMCUS at the expense of our Active and Reserve CONUS forces which are still short equipment.

EQUIPMENT DELIVERY—POMCUS

Senator JACKSON. Has the Army ever considered the approach of increasing the amount of equipment assigned to each active Army unit in NATO, and causing them to rotate the use of all equipment and the maintenance of all equipment so that the prepositioned equipment is ready for action only awaiting the delivery of the military personnel? Please provide a copy of any reports providing analysis.

General VESSEY. POMCUS is the acronym for Prepositioning of Materiel Configured to Unit Sets. As stated, the sets are configured to CONUS based companies/batteries/battalions, and are maintained in Europe for deploying units to "fall in on." The Army has previously considered various proposals for distributing POMCUS equipment to active Army units in Europe as a measure to enhance the availability and readiness of the equipment.

The major problems with these types of programs are those of managing such an enormous project and costs. First of all, there are only 4 divisions forward deployed in Europe, but we plan for 6 division sets prepositioned. There are thousands of items in POMCUS, and the present organization that maintains them would have to grow considerably to support a proposal of such magnitude. The costs of such an effort would be extensive, since POMCUS stocks would have to be issued, transported, maintained and then returned to storage on a recurring basis. The present POMCUS program is working well in Europe.

PURCHASING C-5'S

Senator JACKSON. General Vessey, Allen, Kelley, were you or your general staff officers ever consulted after the Joint Chiefs recommendations of January 8, 1982 but prior to January 26, 1982 on the decision to buy C-5s? Were your civilian counterparts?

General VESSEY. The Chief of Staff of the Army was informed of the decision to procure C-5 aircraft by the Chief of Staff of the Air Force after the decision was made on or about January 22, 1982. The Army Secretariat was notified by the Army Staff.

General ALLEN. The Air Force leadership was consulted and fully participated in the deliberations leading to the Air Force recommendation for acquisition of the C-5 and KC-10 aircraft.

General KELLEY. The Marine Corps participated in the process leading to the Secretary of Defense's decision to obtain outsize airlift to meet the near term deployment demand. The Marine Corps provided general officer representation to the Air Force Airlift Enhancement Committee during that period.

Senator JACKSON. Were you shown prior to April 16, 1982 the source decision document which served as the basis for the decision?

General VESSEY. Prior to January 26, 1982, we were provided documents concerning the airlift decision as part of the Ad Hoc *Committee's Report on the Airlift Enhancement Program*. We are not aware of any one authoritative source document which was the basis for the decision.

General ALLEN. Yes.

General KELLEY. The source decision document was prepared with Marine Corps participation and reviewed prior to being forwarded to the Secretary of Defense.

C-5 DECISION

Senator JACKSON. Was the C-5 decision an OSD decision or a Secretary of the Air Force decision?

General ALLEN. Throughout the budget process OSD withheld some money because of the recognized need for additional airlift. After the C-17 briefings by the Air Force several alternatives were considered and a decision was made to put more money into the airlift line. When the Air Force was informed they decided on the C-5 program because they would get more airlift earlier than was possible with the C-17.

General KELLEY. The Marine Corps participated in the process leading to the Secretary of Defense's decision to obtain outsize airlift to meet the near term deployment demand. The Marine Corps provided general officer representation to the Air Force Airlift Enhancement Committee during that period.

C-5 OUTSIZE PAYLOADS

Senator JACKSON. How many tons per average C-5 mission is outsized equipment for each CMMS Scenario which supports a shortfall in outsize capability?

General ALLEN. The average tons of outsize equipment per C-5 mission for each CMMS scenario for the 1986 baseline is reported in the table below. This average is calculated by dividing the total amount of outsize equipment delivered to the aerial port of debarkation by the total number of C-5 missions from the new computer runs discussed in question 9. To preserve unit integrity, some of these missions carried no outsize cargo. These payloads represent average capabilities achieved during detailed computer simulations that uses both airlift and sealift assets.

Average Outsize Tons per C-5 Mission CMMS 1986 Baseline

Scenario:	*Outsize tons*
I	27.61
II	29.13
III	37.44
IV	44.16

Senator JACKSON. What would be the average tons per C-5 mission for each CMMS scenario if the C-5s were used for the primary purpose of hauling outsized equipment and only hauling such oversize and bulk as can be fitted among outsized equipment?

General ALLEN. The mobility models used in DoD are not designed to operate in the mode necessary to answer this question precisely. However, model input parameter values can be structured to provide an estimate. The table below shows the resulting total payloads and the outsize payloads. The outsize tons are shown to provide data comparable to questions 34 and 47. These payloads are the result of detailed computer simulations of both airlift and sealift and represent expected payloads for the forces in each scenario. It should be noted that these results are scenario dependent and do not represent a general statement of C-5 capability.

AVERAGE OUTSIZE AND TOTAL TONS PER C-5 MISSION—C-5 CARRYING OUTSIZE ONLY—CMMS 1986 BASELINE

Scenario	Outsize tons	Total tons
I	40	52
II	48	59
III	46	57
IV	50	61

SALES OF NEW 747 OR DC-10'S

Senator JACKSON. General Allen, what reason do you have for believing that there will be sales of new 747 or DC-10's for which CRAF modifications can be incorporated with a domestic and foreign market saturated with used 747's and DC-10's?

General ALLEN. The CRAF Enhancement Program is currently structured to take advantage of new aircraft if they are ordered, and existing aircraft if attractive offers are received. The new aircraft option is retained in order to take advantage of any B747 or DC-10 orders which may result from a change in current economic conditions. If no orders are placed, the program can continue with existing aircraft.

CRAF EXPANSION PROGRAM

Senator JACKSON. General Allen, isn't the CRAF expansion program from oversize and bulk cargo planes going to be unsuccessful? If you disagree, give specific justifications for your optimism.

General ALLEN. We disagree. The CRAF Enhancement Program has the potential to succeed for several reasons. First of all, the level of response to the latest Request for Proposal for the retrofit of existing aircraft indicated a significant amount of civil air career interest in this program option. This interest continues in spite of a degree of skepticism about the program caused by repeated false starts. The Air Transport Association has conducted recent (early 1982) discussions on the CRAF Enhancement Program with carrier representatives and the carriers have indicated that they are still willing to participate. The program remains attractive to the DOD since program aircraft would be available for use during an emergency while not imposing the large operating and support costs faced by the Air Force if it purchased aircraft to provide this bulk/oversize airlift.

ADDITIONAL DC-10'S INTO THE CRAF PROGRAM

Senator JACKSON. General Allen, wasn't the average airline's bid for putting additional DC-10s into the CRAF program $28 million to cover lost revenues during the modifications and high fuel cost?

General ALLEN. No. The average offer, in constant fiscal year 1981 dollars, including modification line start-up costs, was $19.3m. This included the cost of the modification, the cost of aircraft down time, added operating costs and all other costs.

BUY USED DC-10'S

Senator JACKSON. General Allen, can't the Pentagon buy used DC-10's for about $30 to $32 million exclusive of modifications?

General ALLEN. There are used DC-10's for sale. They would cost anywhere from $13M to $22M depending on model. However, most of these aircraft are not cargo capable and would have to be modified to make them useful for cargo augmentation. In addition, they would be less attractive than the CRAF Enhancement Program aircraft because the Air Force would have to assume operating and support costs if it purchased these aircraft.

OWERSHIP OF THE AIRPLANES CURRENTLY IN THE CRAF

Senator JACKSON. General Allen, how many of the airplanes currently in the CRAF Enhancement Program are owned by the six domestic airlines which are experiencing serious financial difficulties?

General ALLEN. There is only one aircraft currently in the CRAF Enhancement Program, a DC-10-10 CF to be delivered to United Air Lines in September 1982. United Air Lines could not be placed in the category of the six most likely to fail airlines. (See page 151-152, line 4).

AIRLIFT CAPABILITIES IN THE EVENT OF BANKRUPTCY

Senator JACKSON. General Allen, how do you envision obtaining the airlift capabilities which would be lost in the event of the bankruptcy of any of these or other domestic airlines participating in the CRAF program or the sale of the airplanes in the CRAF program to foreign companies?

General ALLEN. The government has no control over the disposition of assets if the carrier should go bankrupt. In the event a major carrier should fold, his aircraft could be scrapped, placed in storage, sold to another US carrier to service viable portions of the bankrupt carrier's routes or sold to a foreign carrier to service avail-

able routes. All these options must be considered in light of the current overcapacity in the civil industry. The most likely event depends on the need for the available aircraft. The CRAF currently possesses all of the suitable long range cargo aircraft in the fleet and over 80 percent of the suitable passenger aircraft. There is some room for adjustment in the passenger category but none at all in the cargo. If any cargo aircraft, or enough passenger aircraft, were lost from the US fleet they would represent a decrease in capability which would have to be replaced by additional military airlift.

WAS CLOSURE INCLUDED?

Senator JACKSON. Was closure included in the number of tons to be airlifted for the various scenarios in the CMMS? If not, why not?

General ALLEN. Yes.

EFFECTIVENESS OF ALTERNATIVE PROGRAMS

Senator JACKSON. How do you explain the statement in Secretary Carlucci's letter of Congressman Whitten dated April 15, 1981, which states "The effectiveness of alternative programs was assessed in terms of reduction of the shortfall in total tonnage, improvement in unit closures * * *"

General ALLEN. No single measure of effectiveness can adequately describe the merits of competing mobility programs. For instance, while reduction in total tonnage shortfall reflects gross lift capacity, it does not adequately show the extreme importance of early delivery of low density combat equipment, such as helicopters. Improvement in combat unit closures is a useful measure, but it does not show the decisive impact of delivering combat forces when needed to implement the strategy. The weighted tonnage shortfall measure used in CMMS measures the extent to which delivery is timely, but does not provide the visibility into actual unit closures needed to assess risk. Recognizing these vital considerations, CMMS analysts attempted to employ a broad perspective when evaluating mobility enhancement alternatives.

747 SLOWER AT UNLOADING THAN C-5

Senator JACKSON. General Allen, in a submission for the record to the March 9, 1982, House Appropriations Subcommittee on Defense Appropriations, you provided the following insert: "The acquisition of the C-5B provides approximately eight million ton-miles of additional airlift capability. Outsize cargo movement requirements for a typical scenario range from 14 to 27 percent during the first 30 days, with the largest requirement generally in the first 5 to 15 day period. The peak requirement is about nine times today's fleet capability. Even with the added C-5Bs, the peak demand is still six times the capability."

These totals by percentage correspond to those for the CMMS scenarios. The calculated tons to be delivered for Scenario I by Day 5 is 8,850 tons and by Day 10, 37,900 tons.

According to Secretary Weinberger's letter of April 15th to me, the Scenario I requirements for outsized equipment can be met with 10 million ton-miles per day of outsize capability.

Please explain the repeated statements, including those that are in the Secretary Weinberger's letter of April 15, 1982, that the 747 is slower at unloading than the C-5 given that CINCMAC says that the unloading times are identical.

General ALLEN. The statement in Secretary Weinberger's letter, that a minimum of "10MTM/D of outsize is acceptable for Scenario I", was not meant to imply that all the requirements would be met. It was intended to say that the 10 million ton miles per day of additional outsize capability balanced with an additional 10 MTM/D of bulk/oversize capability above the 1986 baseline was an acceptable program level for that scenario considering costs and risks.

The B747 and C-5 have different offload characteristics, they require different materials handling equipment, and their offload times are not identical for all types of cargo. The B747 cannot carry combat-configured outsized firepower equipment; the C-5 can. During the most recent Team Spirit exercise, B747 offload times for rolling stock ranged from 1½ to 3 hours. The C-5, with its drive-on/drive-off features, has demonstrated during exercises, the capability to offload rolling stock in as little as 40 minutes to an hour. For palletized cargo, offload times for the two aircraft are similar.

For wartime offload planning purposes, MAC does project equal ground times for both the B747 and the C-5. This is done with recognition that the aircraft will be

dedicated primarily to transporting different kinds of cargo and, perhaps, operating in different environments. Once again, planning for equal ground times does not mean that the aircraft have identical offload times for the same types of cargo.

KC–10's FOR CARGO

Senator JACKSON. General Allen, all of your statements in the hearing indicated the KC–10s will be used for cargo purposes. Does this mean that a definite decision has been made to assign the 44 KC–10s to Military Airlift Command?

General ALLEN. No, the KC–10s are being procured to enhance Air Force mobility and force projection capabilities. They are currently assigned to the Strategic Air Command with the singular task of supporting force projection by deploying tactical fighters and refueling strategic airlift aircraft. The KC–10's capability as a tanker and supplementary cargo carrier is particularly important on long-range, non-stop deployments where third country overflight rights and enroute staging bases may not be available to deploying U.S. forces. As of now, we anticipate no changes in the KC–10's role or assignment.

EXPLANATION OF THE TABLE

Senator JACKSON. Attached to Secretary Weinberger's letter dated April 15, 1982, was a set of answers to questions submitted to the Department by the Committee. These questions had been prepared by GAO. In response to question 5, a table was provided showing for the CMMS scenarios showing the amount of tonnage of outsize equipment which could be delivered by specific days after commencing an RDF mission. It gave columns for existing capability with 77 C–5s and three levels of enhancement with the highest level corresponding to the equivalent of roughly 200 C–5s. This table shows that by day five in Scenario III that there is no change in our ability to move outsized equipment even if we buy an additional 123 C–5s. General Allen, how do you explain that chart?

The table shows that the amount of equipment moved by day 10 of Scenario I in the outsize category is only 3400 tons. Assuming a 60 ton load of outsized equipment per mission, this corresponds to only 6 C–5 flights per day arriving in the theatre. Is this figure really representative of what our existing fleet of C–5s can accomplish when used primarily for outsized equipment?

General ALLEN. In developing the answer to question 9 it was discovered that the data reported in the CMMS computer runs as outsized cargo in the C–5 deliveries file also included the oversized and bulk filler cargo that would be a normal part of C–5 sorties that carry outsized cargo. The amount of outsized cargo alone cannot be determined from the CMMS runs. The computer model now in use in DoD does not report the data in this way. The CMMS baseline cases have been rerun on the new model and revised tables are provided in response to question 9.

The data show results of simulated deployments in which the airlift fleet is used to move units as quickly as possible in the order established by military planners. They do not show actual airlift capability if C–5s are used only to more outsized cargo. The corrected runs show some improvement in Days 1 through 5 of Scenario III but not as much as the 6 through 15 day period. During the first five days most of the units being moved are Air Force units whose equipment is dominated by oversize and bulk items. More dramatic improvements can be seen through Day 10 and Day 15. By Day 15, for example, a 20 MTM/D increment of outsize airlift capacity increases the outsize cargo moved by 182 percent or over 20,000 tons.

Scenario I required early movement of both Air Force units and those Army units possessing a large percentage of bulkly, low-density equipment such as helicopters. For example, for Air Force units, there would be only about 43 tons of outsize equipment on each C–5 carrying outsize cargo. Similarly, for sorties carrying Airmobile equipment, the outsize tonnage would be as low as 26 tons. The baseline case shows 4,540 outsize tons delivered to the theater at the rate of about 20 C–5 sorties per day. (Not all sorties carried outsize equipment.) If the C–5s had been dedicated to outsized cargo only, we estimate that they would have delivered about 6,000 tons in the same period, if operational considerations like unit integrity are ignored. However, such a concept is incompatible with the military planners' efforts to select and sequence the combat forces needed by the theater commander.

IMPACT OF ADDITIONAL OUTSIZE-CAPABLE AIRCRAFT IN CMMS SCENARIOS

C+	Outsized cargo moved (tons)				Percent increase over baseline		
	1986 Baseline	+10 MTM/D	+15 MTM/D	+20 MTM/D	+10 MTM/D	+15 MTM/D	+20 MTM/D
Scenario I:							
5	734	972	1,094	1,273	32	49	73
10	3,506	3,569	3,799	3,961	2	8	13
15	5,810	8,276	9,162	9,749	42	58	68
30	16,140	19,238	24,615	26,379	19	53	63
45	20,600	21,154	27,369	28,731	3	33	39
60	(1)	(1)	(1)	(1)			
Scenario II:							
5	1,684	2,199	2,857	3,332	31	70	98
10	3,555	6,666	7,165	7,952	88	102	124
15	10,424	14,253	15,740	16,415	37	51	57
30	24,455	30,263	30,330	30,328	24	24	24
45	39,735	45,369	51,450	56,273	14	29	42
60	56,036	58,455	70,268	73,968	4	25	32
Scenario III:							
5	2,504	2,504	2,504	2,504	0	0	0
10	4,368	11,728	12,411	13,564	168	184	211
15	14,224	27,229	29,753	30,861	91	109	117
30	45,986	61,391	69,191	82,469	33	50	79
45	74,976	117,780	137,037	152,851	57	83	104
60	100,196	162,252	174,834	199,713	62	74	99
Scenario IV:							
5	998	1,005	1,109	1,187	1	11	19
10	4,207	7,234	7,905	8,803	72	88	109
15	7,433	11,006	11,334	12,007	48	52	62
30	21,731	33,304	36,714	46,335	53	69	113
45	43,377	60,439	69,792	85,740	39	61	98
60	67,571	108,026	129,619	144,568	60	92	114

[1] Deployment completed by C+45.

TOTAL DEPLOYMENT TIMES

Senator JACKSON. Using the CMMS scenarios, what does your analysis show will be the difference in total deployment times if you add 50 C-5B's or 50 747 Freighters to the programed airlift force?

General ALLEN. The type of analysis that was done for the Boeing proposal has been done for CMMS Scenario I only. A set of forces were selected to be moved by air and the possibility of faster deployment by sealift was not considered. Using this methodology, the force with an additional 50 C-5s completed the airlift requirement in 29 days, and the force with an additional 50 B-747s completed the requirement in 32 days.

This method of evaluation has not been used for the other scenarios because it does not consider the contribution of sealift. A considerable effort would be required to build the necessary data bases.

C-5 AVAILABILITY IN NORMAL HEIGHTENED READINESS

Senator JACKSON. General Allen, aren't 70 C-5s available in your normal heightened readiness? This would give you 13 million ton-miles per day?

General ALLEN. The present C-5 force contains 70 primary aircraft authorized [PAA]. For each contingency, not all of these aircraft are committed as a small number are needed for other high priority missions. Seventy PAA aircraft do provide approximately 13 MTM/D worth of capability. This capability will be main-

tained by the entire C–5 fleet recognizing that some aircraft may not be available due to scheduled/unscheduled maintenance.

PROS AND CONS OF DEDICATING C–5'S TO MOVEMENT OF OUTSIZED-CARGO

Senator JACKSON. Please address the proposition that I set forth in my opening statement that if the C–5s in our current fleet are dedicated to hauling outsized equipment, then this would increase the shortfall in oversized and bulk capability proportionately. Do you agree or disagree? Please give detailed explanations for your answer.

Isn't it true that the CMMS did not include in its modeling technique the dedication of the existing C–5 fleet for outsized equipment thus overstating the shortfall in the outsized capability? Defend your answer in detail.

General ALLEN. I agree that dedicating C–5s to the movement of outsized equipment would increase the shortfall in oversized and bulk cargo and that the computer model used in CMMS did not do this. However, there are negative as well as positive consequences to dedicating C–5s to the movement of outsized cargo which, we believe, justify the use of the CMMS modeling rule.

The percentage of outsized cargo varies widely among units. Consequently, the capability of a particular airlift fleet to move outsized cargo will, inevitably, exceed requirements for some units and be deficient for others. When outsize capability exceeds requirements for a particular unit, one of two rules can be followed:

(1) let outsized-capable aircraft begin to move the outsized cargo of the next unit, or

(2) let those aircraft carry some loads of oversized and bulk cargo only.

Rule #1 maximizes the amount of outsized cargo carried in any period of time but it delays deployment of units with little outsized cargo. Rule No. 2 results in the deployment of less outsized cargo in any period of time but it uses the fleet to deploy units as quickly as possible in the order established by the military planners.

Ideally these rules would be applied on a case-by-case basis based on military judgment about the risks and benefits of delaying delivery of one unit in order to accelerate delivery of a subsequent unit. This is not possible in a computer model.

If we were interested only in reducing the total time required to move some set of forces then we would follow Rule #1 and dedicate C–5s to the movement of outsized cargo. In augmenting our fleet, we would match the fraction of airlift fleet capability that was outsized to the fraction of total cargo that was outsized. This would provide a "balanced" fleet at lowest cost.

However, we are not interested solely in reducing total deployment time. A basic assumption in mobility analysis is that the order in which units appear in a deployment sequence and their desired delivery dates reflects their importance to the military strategy. Since we have no way of trading off a few days delay in one unit for a few days acceleration of another, we apply Rule #2 and deploy each unit in turn as quickly as possible. Under this rule, some C–5 sorties will have no outsized cargo for some units and oversized/bulk cargo will be delivered well ahead of outsize cargo for other units. If the fleet mix is changed to reduce one effect, the other effect will be increased.

ENGINE CHANGES IN THE LOCKHEED PROPOSAL

Senator JACKSON. General Allen, on March 19, 1981, General Huyser, then Commander, Military Airlift Command, testified before the House Armed Services Committee that if the C–5 production line were reopened, it would require R&D money. I quote: "If we restart production on that, we should update the power plant. We are somewhat power limited and we have new technology whereby we could use what the commercials are using. The skin on a C–5, for example, is much more subject to corrosion than modern metals. Avionics could be updated."

I have obtained an extensive list of engineering changes that MAC recommends be made on the C–5 aircraft before initiating another production run. They also recommend upgrading the performance of the C–5 by changing or modifying the engines.

Is this engine change included in the Lockheed fixed price proposal?

What engine will be used since the old engine is out of production?

General ALLEN. The C–5B will be equipped with General Electric TF39–1C engines (an improved version of the TF39–1A originally installed on the C–5A). GE has made a proposal to Lockheed to re-open the TF39 production line. C–5B engines will be provided to the Air Force by Lockheed as contractor furnished equipment. All engine costs have been factored into Lockheed's fixed price offer on the C–5.

General Electric states that over 90 percent of the TF39-1C engine components are either in production or on order. This is due to the on-going Air Force effort to increase C-5A spares stock levels, the on-going Air Force program to upgrade all C-5A engines from TF39-1A to TF39-1C configuration, the fact that the TF39-1C is 60 percent common by part number with the commercial CF6-6 engine, and the fact that the TF39-1C low pressure turbine is in production for the GE LM2500 marine engine.

Logistics supportability concerns dictate a common engine for the entire C-5 force. Use of an engine other than the TF39 would require RDT&E funds and would delay delivery of the aircraft.

The C-5B program includes $511 M for engineering change orders for fiscal year 1983 through fiscal year 1987. We intend to selectively apply these funds for changes that will increase reliability and decrease the support cost of the C-5B.

Senator JACKSON. Attached is a copy of the twenty year operation and support costs prepared by the Aeronautical System Division comparing the C-5 and the 747. These comparisons show a cost difference of 2.1 billion dollars in fiscal year 1981 dollars in favor of the 747. Please explain in detail the Pentagon analysis which justifies increasing the ASD estimates by 30 percent. Please also explain why the ASD estimate for fuel consumption by a 747 is higher than a C-5 basing the analysis upon experience such as with the EC-4 aircraft.

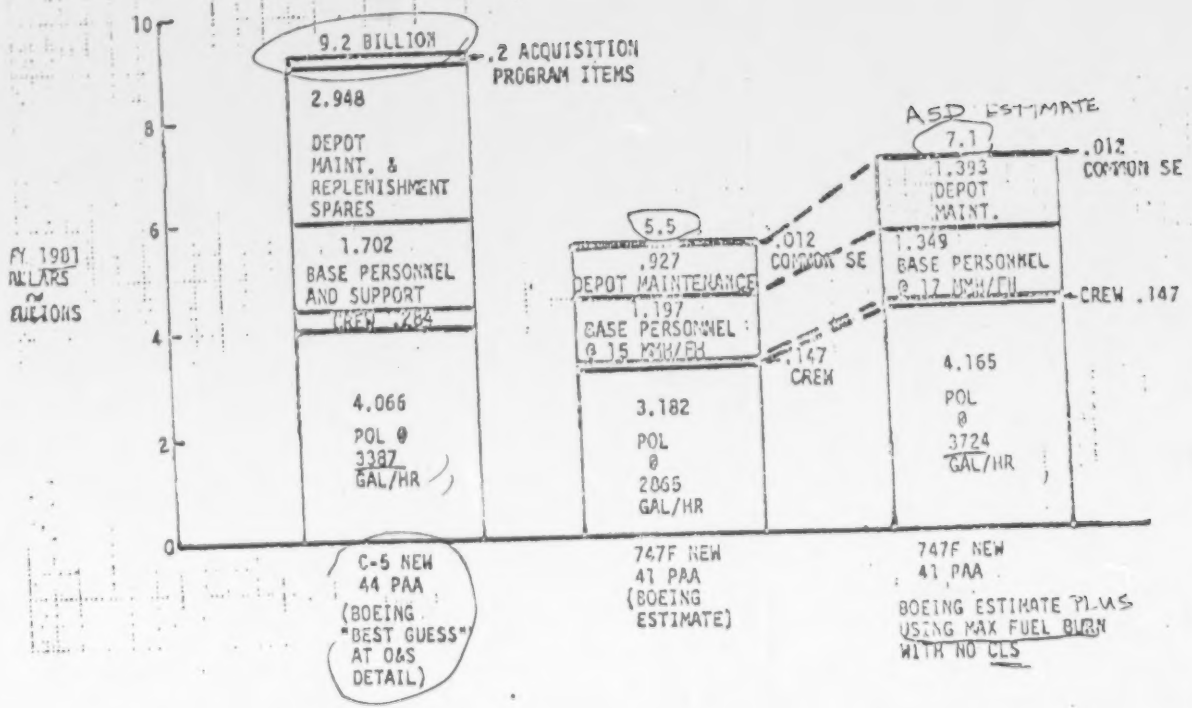
General ALLEN. The operating and support cost estimate labeled "ASD estimate" was not developed by the Aeronautical Systems Division and we are unaware of the origin of the chart. For your information, based on organic maintenance, a PAA of 42 B747s and each PAA flying 1,168 hours per year, the Air Force operating and support estimate is as follows:

Fiscal year 1981 Air Force operating and support estimate

Element:	*In billions*
POL	$4.4
Unit personnel support	2.0
Replenishment spares	.5
Depot maintenance	1.2
System support/modifications	.5
Total	8.6

Since the fuel estimate is not from ASD, we cannot provide rationale for differences in the estimates. The fuel consumption figures used in the 20 year life cycle cost were 3,294 gallons per flying hour for the C-5B and 3,893 gallons per flying hour for the Boeing 747. The Air Force experience with the E-4 (747) is 4,186 gallons per flying hour.

20 YEAR OPERATION AND SUPPORT COSTS



[Whereupon, at 12:23 p.m., the committee was adjourned, subject to call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1983

MONDAY, MAY 10, 1982

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

COMMITTEE AMENDMENTS TO S. 2248

The committee met in executive session, pursuant to notice, at 10:10 a.m., in room 212, Russell Senate Office Building, Senator John Tower, chairman, presiding.

Present: Senators Tower, Thurmond, Goldwater, Warner, Humphrey, Jepsen, Denton, Brady, Stennis, Jackson, Byrd of Virginia, Nunn, and Levin.

Staff present: Rhett B. Dawson, staff director and chief counsel; Francis J. Sullivan, minority staff director; James F. McGovern, general counsel; Paul C. Besozzi, minority counsel; Christine E. Cowart, chief clerk; Brenda K. Hudson, assistant chief clerk; Anthony J. Principi, counsel; Ann E. Sauer, special assistant; Louis W. Arny, III, Michael B. Donley, Robert S. Dotson, Richard D. Finn, Frank J. Gaffney, George K. Johnson, Jr., James R. Locher III, David S. Lyles, José E. Martinez, Patrick L. Renehan, Carl M. Smith, and James C. Smith, professional staff members; Drew A. Harker, Mark B. Robinson and Ralph O. White, research assistants; and Jacquie S. O'Grady, staff assistant.

Also present: Dennis P. Sharon, assistant to Senator Goldwater; Buzz Hefti, assistant to Senator Warner; George Kohl, assistant to Senator Humphrey; Jim Dykstra, assistant to Senator Cohen; Jon Etherton, assistant to Senator Jepsen; Paul Schreiber, assistant to Senator Denton; Don Imgram, assistant to Senator Quayle; Robert Nichols, assistant to Senator Jackson; Frank Krebs, assistant to Senator Cannon; Gray Armistead, assistant to Senator Byrd; Arnold Punaro, assistant to Senator Nunn; Greg Pallas, assistant to Senator Exon; Peter Lennon, assistant to Senator Levin; and Bill Lind, assistant to Senator Hart.

Chairman TOWER. I apologize for getting off to a late start, Mr. Secretary. We are waiting for more of our members to show up. Monday morning is the worst possible time to hold a committee meeting because many of our members travel back and forth between their constituent districts. But I note that Senator Stennis, despite the fact that he is up for reelection as I am, and despite the fact that he lives in Mississippi, is here on time.

Senator STENNIS. As a matter of fact, I was thinking about Mississippi while I was waiting.

OPENING STATEMENT BY SENATOR JOHN TOWER, CHAIRMAN

Chairman TOWER. The committee will come to order.

Negotiations on a budget compromise have been going on for some time. While I was not involved or consulted in these negotiations—as a matter of fact, I did raise the point at the White House Friday that during the entirety of these negotiations, nobody with any responsibility for defense was directly involved, but as consensus is apparently reached among the so-called Gang of 17, the reduction of $5 billion in fiscal year 1983 defense outlays would be part of the package.

The Senate Budget Committee last week adopted the first concurrent budget resolution that includes the $5 billion defense outlay cut and the $9 billion obligation authority cut for the fiscal year 1983 defense function. These cuts are exclusive of any military or civilian pay reduction. Last Friday, President Reagan, in order to reduce the deficit, decided to reduce the administration's defense budget request by endorsing the Budget Committee action. The President has made it clear that these reductions are to be viewed as a floor and not a ceiling, that is to say that what we come down to is the floor. He doesn't want any further reductions.

I might read a letter that he has sent to me, and I understand that similar letters have gone out to Budget Committee leadership.

Dear John: In accordance with my desire to reduce the deficit, I have agreed with the Republican leadership proposal of a reduction in the national defense function in fiscal year 1983 from $224.2 billion, the Congressional Budget Office outlay base, to $215.3 billion. Included in this reduction is $3.9 billion of military and civilian pay.

To achieve this new level of outlays, I have asked the Secretary of Defense to reduce program budget authority by $7.5 billion. This level of budget authority program reduction combined with the pay reduction will produce the desired outlay savings. In doing so, I have asked Cap to protect the readiness and sustainability of our military forces, and to ensure the least possible disruption of our critical modernization efforts. Achieving the required outlay savings, therefore, will require a number of difficult actions, including the elimination of some military units from the force structure. We will not perpetuate a hollow military force.

The exact composition of the budget authority reductions to the national defense function will be worked out by the Department of Defense and the Office of Management and Budget to ensure that we remain within the outlay ceilings agreed to for fiscal year 1983. Let us assure you, therefore, that the proposed programmatic reductions in the defense function will result in an outlay ceiling no higher than $215.3 billion for fiscal year 1983.

Sincerely, Ron.

On Friday, Secretary Weinberger and I met to discuss how to implement the President's decision and the Senate Budget Committee's action. My choice was to try to incorporate this reduction while our bill is on the floor of the Senate. Secretary Weinberger advised that in anticipation of a defense reduction he has been working on possible cuts in the budget in the past few weeks. Secretary Weinberger also stated that while it would be difficult to achieve, he could provide his recommendation to the committee by this morning.

After consulting with some of you on both sides of the aisle, it was suggested that Secretary Weinberger testify to the committee

about the reductions, and he agreed. He is of course before us this morning for that purpose.

The Secretary and I, during his time at the Department of Defense, have on many occasions discussed the strategy for decreased funding. It is an issue on which we see eye to eye. Therefore, the priorities of that strategy were applied to these reductions, and they are. We would not countenance a significant degradation in the readiness and sustainability of our forces. We would not permit our forces to be hollow, to use Shy Meyer's term. We would perfect modernization to the extent possible, and in order to preserve readiness and modernization, we would prepare to accept reductions in force structure.

The Secretary was asked to provide us a list of reductions along these priority lines as soon as possible. Saturday afternoon the Department of Defense provided a tentative list to the committee which we shared with the staff, both majority and minority. On Sunday afternoon a final list was made available to the same staff, and I reviewed the final list.

Let me make a few observations about the recommended reduction. Before doing that, however, I want to thank the Secretary's staff for an excellent spirit of cooperation, and I also want to express my appreciation to the entire committee staff for their cooperative efforts.

Turning now to the list of recommended reductions, I would like to point out that we used as a rough guideline the Budget Committee's markup of the 050 function. Therefore, what is proposed is a reduction in budget authority sufficient to achieve the Budget Committee's outlay ceiling of $215.3 billion for fiscal year 1983. Of that total, not all is assumed to come out of the bill now on the floor which is $3.2 billion below the President's February request and budget authority, and approximately $1.1 billion below the original requested outlays for fiscal year 1983.

To the extent possible, I asked Secretary Weinberger to assume $3.2 billion in budget authority and $1.1 billion in outlays by which the committee had already reduced the administration's original request in making his recommendations, and he has done so.

What I propose to do after the Secretary's testimony, and any questions you have before him, is to lay before you that portion of the recommended cuts that are in the bill now on the floor. I would propose these recommended reductions as a committee amendment to the authorization bill that I hope would be agreed to by the committee sometime today, and I hope we will stay in until we finish, even though it is late.

We would then recommit the bill with instructions to report immediately. We must do this to stay on the floor, in my view, and continue in an orderly process. That is to say, if we can agree here, I would submit this as a committee amendment and move to recommit the bill with instructions to report it immediately with that amendment included, protecting, of course, those amendments that are already in the bill, and it would then be treated as original text for the purposes of amendment so everybody's rights to amending the bill on the floor would be protected.

Let me assure you, and I want to make this very clear, that these reductions are being made over my prostrate body. I do not

like to see us forced into this position, but I am a very practical man and very pragmatic, and I recognize that if the President decides to recommend a reduction to the defense budget, we should call it a reduction in the increase, but certainly I cannot stand in his way, and I doubt that this committee could. Because of congressional sentiment being what it is, I think we would be in an almost untenable position.

I think it would require the full support of the President and bipartisan support of the Congress to get the defense budget passed in a form that is as close as possible to what our committee is recommending. Some but not all the cuts recommended are painful and would be difficult to achieve, and a little of something is coming out of virtually everybody's hide.

We have been forced to choose among validated military requirements. Now, let's understand that what is being recommended to be cut are not superfluous programs or superfluous activity. We are being forced to choose among validated military requirements. So that forces us to order priorities.

Now, the committee is responsible for setting limitations on defense spending, and we have to carry out that responsibility the best we can regardless of the fact that it is difficult.

Now I would like to yield to Senator Stennis for any comment that he may have.

Senator STENNIS. Let's proceed Mr. Chairman.

Chairman TOWER. Secretary Weinberger is accompanied here today by Deputy Secretary Carlucci, Gen. David Jones, Chairman of the Joint Chiefs, and by Jack Borsting of the Department of Defense.

Mr. Secretary, why don't you proceed in any way that you see fit, and then we will go to questions.

STATEMENT OF HON. CASPAR WEINBERGER, SECRETARY OF DEFENSE, ACCOMPANIED BY HON. FRANK CARLUCCI, DEPUTY SECRETARY OF DEFENSE; GEN. DAVID JONES, CHAIRMAN, JOINT CHIEFS OF STAFF; JACK BORSTING, ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER); AND REAR ADMIRAL METCALF

Secretary WEINBERGER. Thank you very much, Mr. Chairman and members of the committee. We appreciate greatly the courtesy and the opportunity of the hearing this morning on short notice and fully agree with the statements you have just made, Mr. Chairman.

I would like to say at the outset that there has been no change in the threat we confront and no change in the position we presented to the committee earlier in the year that we believe the matters submitted on the basis of the President's February budget represent, as you said, validated military programs that are important for us to begin and to continue.

The President has determined, and certainly he is the only one who can make such a determination, that the overall national economy requires some reduction in the total amount of the defense budget this year, that is essentially what we are trying to do this morning, to do that in the way that will cause the least harm,

as he said in his letter, to readiness and sustainability of our military forces, and to insure the least possible disruption of our critical modernization efforts.

He understands, and we all understand, as you have said, that first of all, it is not easy to do, and second, it will be necessary to defer and stretch out some of the things that we believe are necessary, to reduce force structure.

All of these things are decided and in the sense that we have no argument with the necessity of making this sort of change, not based on the threat facing us but based on economic circumstances and the desirability of reducing the total deficit. So it is in that spirit that we present them this morning.

The point, however, I think should be made is that what we have tried to do is to cancel and terminate somewhat lower priority investment programs, including some that are in the R. & D. stage, on the theory that it is much better to terminate a program just getting started than to attempt one in which there is very large sunk cost and is just beginning to show a very real potential.

We are going to retire some older and somewhat less capable elements of our naval force structure in order to achieve these short term savings. Some of these forces will be retired sooner than previously planned, although there were previous plans, of course, to retire them, and some of them will be kept in a higher state of readiness than retirement or mothballing sometimes connote.

Certainly this means somewhat greater risk in terms of our ability to carry out our military mission. The alternative, as you said, Mr. Chairman, is a hollow force in which units are understaffed, unready, unsustainable or ill-equipped for modern combat. We recognize that a smaller defense budget can only be achieved with a smaller military force, that there is no easy way to make these reductions, and that the idea—the old sort of perception or cliché, as we like to think of it, misperception—that we can cut billions if we would only give up all of the waste that we are supposed to have in our budget is of course nonsense. We have seen a lot of cartoons about that, but the simple fact of the matter is that when you have spent as much time as we have on the budget, starting well over a year ago, and re-examining it twice, we know that, of course, we can spend less if we have less defense, and that is the only way in which it can be done, and that is the way in which the reduction recommendations are made to you this morning.

We are, as you said, starting with the Senate bill as the base. We will, of course, as you indicated, Mr. Chairman, when the bill reaches conference, perhaps want to register some appeals or reclamas with respect to some of the cuts as well as perhaps with some of the other things. But basically the highlights of what we are planning to do are summarized by saying that we plan to cancel on the Army side, the advanced rocket control system. We will be deferring procurement of the field artillery ammunition support vehicle for at least 2 years; we will restrict the M-1 tank procurement to 60 a month rather than the 90 surge that we had planned; we will inactivate 1 major command, the Combat Development Command, and we will delete 4 battalions from the Active Army force structure, which is the equivalent of really more than a brigade.

In the Navy and the Marine Corps we will decommission 22 ships earlier than we had planned, anywhere from 1 to 3 to 4 years early as far as the destroyers are concerned, even earlier than that as far as the 5 LSD's are concerned. We will restructure the LAMPS Mark III program, buying that program over 5 years rather than 4. We will terminate the lift ban development program and we will defer two of the helicopter programs.

In the Air Force we will deactivate one active wing, and we will terminate the conventional stand-off weapon program.

For all of the services we will initiate new policies on operational and rotational moves designed to save funds. This will reduce the frequency of moves. It will add to the length of service in various parts of the world for many of the troops. It will of course improve readiness in one sense because it will mean that more experienced troops are there. We do not know what it will do for the morale at this point. It will permit some savings of as much as 10 percent in these particular accounts.

For all the services and the Defense agencies, we will defer $1.4 billion in military construction and family housing projects that are not directly related to operational activity, required for readiness or related to improve overseas living conditions. That is one thing we insisted that we are not reducing. This will make a very significant reduction in the 1983 budget request.

Basically our approach is to fix first things first. We are certainly not going to try to repeat the mistakes of the late 1970's when the Nation maintained a larger force structure than it was able or willing to afford. We will not hide the lack of funds from the American people by such devices as cutting the training hours of our pilots or compelling them to enter combat unprepared or skipping on spare parts or ammunition. We have tried to identify in accordance with the President's direction on a number of these cuts. They were developed in consultation, rapid and very dedicated, intense consultation over the weekend with the military departments, and we urge your support for the approach that we have taken.

We appreciate again, Mr. Chairman, very much the speed with which you and the committee have moved the bill this far along, and particularly your willingness now to hold these hearings this morning in the interest and spirit of continuing the momentum on the bill which you have generated already.

Thank you very much, sir.

Chairman TOWER. Thank you, Mr. Secretary.

Do any other witnesses wish to testify?

Secretary WEINBERGER. I gather not.

Chairman TOWER. All right.

Mr. Secretary, is the action you are recommending today consistent with the President's commitment in his letter to me which I read into the record a few moments ago concerning a reduction in this fiscal year of 1983 of $7.5 billion in obligational authority, and of $5 billion in outlays compared to the CBO baseline?

Secretary WEINBERGER. The recommendations are consistent, Mr. Chairman. The budget authority is at the $7.5 billion figure. The outlay reductions are reductions from the CBO base, and they bring the total to the amount that the President and the Republi-

can leadership agreed upon of $215.3 billion. Actually, some of our recommendations even take it a little deeper than that, to $214.8 billion.

Chairman TOWER. Well, to make a long story short, this is the ceiling set by the Budget Committee?

FORCE STRUCTURE REDUCTIONS

Secretary WEINBERGER. Yes, sir, we are not exceeding it.

Chairman TOWER. General Jones, I know that one of the toughest things for any of us to accept is the idea of force structure reductions. I am inclined to agree that we have maintained a larger force structure than we are prepared to adequately support, but I think it is important to know how the uniformed services feel about this. I might note that I personally discussed these reductions with each one of the service chiefs yesterday with one exception. I couldn't find Admiral Hayward, so I discussed it with Admiral Small. I am assured that this does fall in line with their way of thinking, so I would like to ask General Jones to explain why, from the services' point of view it makes more sense to reduce force structure rather than sacrifice any of our readiness, sustainability, or modernization initiatives given this kind of Hobson's choice that we have.

General JONES. Mr. Chairman, for many years, as you well know, we maintained force structure as best we could. Even though there were reductions in the post-Vietnam era, we tried to keep force structure, and we deferred on readiness and modernization hoping that at sometime we would be able to fill in. We found that that was not the best way to go.

As you recall, a number of years ago we expressed the first concerns that we didn't have enough of a constituency for readiness. There were constituencies throughout the country particularly for new weapon systems but not enough for readiness. The priority has been shifted, and we would rather have units that are ready and capable and deployable and that can fight with some reasonable sustainability than to have a larger force structure which does not meet all these criteria.

So even though we regret having to cut force structure, we think that is in the best interests of the Nation and it gives us the overall best combat capability.

Chairman TOWER. You talked about sustainability and readiness. What about modernization?

MODERNIZATION

General JONES. We would like to protect the modernization program. There are some items in here that necessarily are slipped, but for the most part we do protect the major modernization and at the expense of force structure.

Secretary WEINBERGER. Mr. Chairman, I might just add that one of the examples of modernization is that we will get under this proposal 60 M–1 tanks per month. We had hoped to acquire 90. We will be modernizing in the sense of getting 60 new tanks a month. We cannot do the full modernization that we wanted, but we are protected as much as we can. That is just one example.

Chairman TOWER. Senator Stennis?

Senator STENNIS. Thank you, Mr. Chairman.

You are talking about figures now for 1983. What about the savings now, and what will these changes do toward saving money for 1984 or 1985?

REDUCTIONS TO GENERATE SAVINGS FOR 1984 AND 1985

Secretary WEINBERGER. Senator, the savings that we recommend this morning will generate about $4 billion or $4½ billion, I think, in outlay savings in 1984, and the President has indicated that he feels some additional savings and outlays in 1984 and 1985 may be necessary.

We will, of course, in submitting the 1984 budget, conform completely to what his recommendations are because, it is the President's budget. We are working, as you know, in a whole year cycle in the Department on the 1984 budget now. The fiscal year 1983 savings we are talking about this morning will generate some outyear savings in addition to the $4 billion. For example, there would be savings of $3.3 billion in military pay if the same ceilings and same rates of increase prevail in 1984.

He has indicated that an additional set of outlay targets, with reductions, may be desirable, and we will work toward whatever he finally concludes is essential.

Senator STENNIS. Well, we know now that the President didn't look at every one of these items; no one human being could. So we are not talking in terms of trying to hold him responsible for this entire thing. But this is a different way from which you ordinarily reduce amounts in these bills. With all deference to you gentlemen, I get the impression—and this is no reflection on anyone—that instead of reducing some of the hardware and lessening the numbers, this is a kind of temporary thing that has been put together. You didn't have much time, it is true, but did you consider making more reductions in specific items of hardware? You mentioned tanks. Does this have any effect upon the other unfinished business of the bill like AWACS and these large, expensive items. I judge it doesn't have any, but were they considered?

Secretary WEINBERGER. Senator, in your question specifically of course, there are 22 ships, older ships that are being taken out of service. As far as new things, we would terminate the A-6E naval aircraft after this procurement, and we would certainly be restructuring the procurement schedule for the LAMPS antisubmarine helicopter, purchasing it over 5 years instead of 4, as I said.

I did mention the tank, and we would terminate the A-10 production. So there are a number of hardware items. Where we were far along in the research and development, sometimes even well into the production, which of course meant that these items had passed a number of tests and gone over a number of hurdles, it was pretty clear that they were necessary and large sunk costs were in them. In some situations of that kind we are recommending some deferments which, of course, we don't like to do, and others where there have not been the sunk costs where the proven necessity of replacing an older weapon with this newer weapon has not been established, and we recommend the termination. In some, such as

the aircraft, we feel there are other aircraft in the inventory or that are planned for procurement that can do the job better. There are a variety of reasons behind each of the items here. We have spent quite a lot of time in these reductions, and we have tried our best, as the chairman said, to stay directly within the President's guidelines.

DEACTIVATING AIR FORCE WING

Senator STENNIS. What is going to become of this Air Force wing now? You say you will deactivate one of the Air Force wings. What does that mean?

Secretary WEINBERGER. That would mean that three of the squadrons would go out of the active service. The planes themselves would either be put into storage or transferred into Reserve forces for improving their capabilities. The personnel would be let go.

Senator STENNIS. They would be what?

Secretary WEINBERGER. They would be let go, terminated. You are shrinking the force structure, that is inevitably the result. It is the same with the four battalions in the Army.

Senator STENNIS. In that case, you are choosing there between manpower and weaponry—or you are choosing between units or more planes and more hardware. Isn't that what is amounts to?

Secretary WEINBERGER. Yes, sir, we are driven, because of the desire for outlay savings, to look at items which have a large outlay impact in the first year or two. Manpower, of course, is the one that comes to mind first because, as you know, about 43 percent of our fiscal year 1983 total budget is in personnel costs. So that too has to be a consideration.

But basically it is the idea of trying to make the things we have now as strong, ready, sustainable and modern as we can. If that involves shrinking to some extent the force that we have, so that we can keep what is left strong and ready, then that is a very hard choice we have made.

I think the chairman summed it up very well about the posture of his body over which the cuts were made.

Senator STENNIS. Well, it looks like we have all of this trouble in our hemisphere now, so what is the effect of taking out these 17 destroyers and the Marine Corps amphibious ships? Just a few days ago I heard about them being necessary.

Now, I am not saying this critically. I am not trying to taunt you with your problem.

Secretary WEINBERGER. No, sir, you have never done that. I cannot tell you that the threat has diminished or the need has diminished in any way, but there are other needs; national economic policy, a desire to reduce the deficit, the feeling that if that is done the interest rates will come down, all of those things have to play a part, too.

What happens with these ships is the ones that were scheduled for earliest retirement probably would go directly through mothballing. The ones that were scheduled for later retirement would be put in a form of reserve status under which they could be made

available, we would hope, within 2, 3, or 4 months so that you don't lose them completely. The crews, yes, you do lose those.

The ability to recover in the event there should be a mobilization requirement we would try to preserve to the greatest extent we can. I have the full list of ships that are contemplated for retirement, there may be people here such as Admiral Metcalf, who could go into more detail if you wish. But basically the idea would be again, this is an earlier than planned retirement of the ships, picked out with as much care as possible to reduce the effectiveness of the force as little as possible and to keep them where we could get to them as quickly as possible should they be needed.

CRUISE MISSILE PROGRAM REDUCTION

Senator STENNIS. How did you arrive at taking out $42 million here on your consolidation of cruise missile programs? That is under research and development now. Have you taken that much out of general research and development, or does that pertain to one item? This is an up front item.

Secretary WEINBERGER. Yes, sir, it is an up front item. It is a compartmented, highly classified program, but essentially what we are trying to do is to consolidate the two programs even though there may be some loss in the specific mission requirements of that service. But we are trying to make that kind of consolidation, and again, the details, we would be delighted to provide in a special briefing for you in view of the compartmented nature of the program.

Senator STENNIS. My time is up, Mr. Chairman.

Do you feel certain that the program will go forward with efficiency?

Secretary WEINBERGER. Yes, sir, the program will go forward. They will not be separate programs. We will lose a little of the separate mission desirabilities or desires of the two services. The consolidation will not interfere with the program or with the fact that we will have the kind of product that we believe we need.

Senator STENNIS. Thank you.

Chairman TOWER. Senator Thurmond?

Senator THURMOND. Thank you, Mr. Chairman.

Mr. Chairman, first I would like to associate myself with your remarks with regard to reducing the President's budget. I feel very strongly, and have for years, that if we are going to survive as a Nation we have to improve our defenses. I was very heartened when President Reagan did that, and I commend him for it. I can understand the situation in which he finds himself now, and which caused him to recommend certain reductions.

I can also understand that we have a responsibility here to cooperate as best as we can.

Mr. Secretary, I want to commend you and your staff for the fine job that you have done in preparation of the fiscal year 1983 defense budget, and subsequent presentation. I am sorry that we are forced to make these reductions. I felt that your original budget, although higher than recent years, was sorely needed to modernize our Armed Forces.

The cuts that you have outlined seem reasonable and fair. I know that you must have deliberated long hours to reach these figures.

Secretary Weinberger, are you satisfied that these cuts will not unduly harm or slow the administration's plan for force modernization?

Secretary WEINBERGER. Well, Senator, I think unduly is the key word there. You do have to measure it against the existing total condition and economic situation of the Nation. With those understandings, I can say they will not unduly interfere with it. We have tried to protect the areas that the President particularly earmarked in his letter, and I think we are all agreed, specifically including the President, that it would have been much better, had the situation permitted us, to continue along the path that he had recommended in February for the defense budget.

We all recognize that that is not possible at this time, and we think that the changes that we have before you will not unduly slow the rearmament of America that we do feel is still vitally necessary, although more so, perhaps, in view of the arms reduction proposals that the administration has now publicly announced and which the President fully believes can succeed only if we enter those negotiations from a position of real strength.

Senator THURMOND. I was of the opinion that the programs that had been cut or eliminated were all valid requirements.

What if any are your plans to replace them in the future?

Secretary WEINBERGER. Senator, we will replace some in the future; some we have deferred or decided to buy in 5 years instead of 4; and we have recommended earlier retirement of some of the ships with a provision that we will put them in a condition that will enable us to take them out sooner than would otherwise be the case. We would certainly hope to be able to restore military construction and the Reserve component training, as well as the Army Reserve manning which we would like to increase. These are all ways in which we can start to get in subsequent years, particularly if the economic condition improves and if we can have visible signs of that from the behavior of the market with respect to bond interest and other things.

ARMY MODERNIZATION CUTS

Senator THURMOND. Mr. Secretary, I believe it is generally agreed that the Army's modernization has been delayed the longest.

How do you see these cuts impacting the Army?

Secretary WEINBERGER. In Army modernization?

Senator THURMOND. Yes.

Secretary WEINBERGER. They will impact the Army, as I mentioned, one of the specific examples being the tank. We will get 60 of the M-1 tanks per month. That is now a very fine tank, with almost all of the problems worked out of it after all of these years. We had originally talked about moving our way up to 90 per month. That will be the prinicipal reduction in the rate of modernization.

The ballistic missile defense is another area where we will perhaps have not as much in the way of research-based facts as early as we would have liked. Generally we have tried to protect equipment modernization, and General Vessey advises me that equipment modernization has generally been protected with the two exceptions that I have just mentioned.

Senator THURMOND. Thank you, Mr. Secretary.

Senator Tower is out of the room at the moment.

Senator Jackson, are you next?

Senator JACKSON. Yes.

Mr. Secretary, of the number that you have submitted here on budget obligations, $3,200,000,000, does that, some portion of it duplicate cuts that the committee has made? Do you accept the cuts made by the committee that are not included in your cuts? I am trying to get a total figure here.

Secretary WEINBERGER. No, sir, we do not. I will tell you what the basis of our figures is here. We have not accepted, but we have included in our calculations the MX reductions that were common both to this committee and the House committee. Otherwise we have not accepted them because they do involve a rather substantial reduction in the procurement of the MX missile itself, as well as some of the other funding that we have requested for that. But to the extent that this committee and the House committee agreed and had a common ground of reductions for that, they are included in our calculations this morning.

As I mentioned, we still want to leave ourselves the option of making appeals or reclamas to the conference committee when that occurs.

Senator JACKSON. What percentage of the defense budget at the present time goes to pay allowances, in other words, people and the necessary supporting requirements, everything from hospitals to housing, et cetera.

Secretary WEINBERGER. The figure we used, Senator, is 46 percent in personnel costs. I think when you add in hospitals it rises above that.

Senator JACKSON. Does that include pensions?

Secretary WEINBERGER. Yes.

Senator JACKSON. The reason I ask is I have a figure which has been kicked around of a little over 60 percent.

Secretary WEINBERGER. If you are to include hospitals and all types of activities of that kind.

Senator JACKSON. Yes, that is support personnel and so on.

Secretary WEINBERGER. Then I think you probably are right. The straight personnel costs that we use are 46 percent. Mr. Borsting may want to add to that. He says that is right.

Senator JACKSON. What figures do you use when you include all supporting services?

Secretary WEINBERGER. I guess it depends on what is included in that, but it is about 55 percent. There is no question about that.

FUEL CONSUMPTION SAVINGS

Senator JACKSON. All right. What assumptions are you using in connection with savings on fuel consumption?

Secretary WEINBERGER. We are estimating for fuel consumption savings a price of $47.46 per barrel as a composite price for the fiscal year. The original budget recommendation was based on a composite estimate of $49.98 per barrel, and the savings between those two figures is $370 million.

We all understand, as I known you do, sir, that this is an estimate, and prices can fluctuate up or down, and this is now what we are estimating as a good composite figure, lower than in February.

Senator JACKSON. Lower than in February?

Secretary WEINBERGER. Yes, sir.

Senator JACKSON. My judgment is that it is going up and that it already has started. I am not arguing with you, but I think one can find some real trouble there with that one.

Secretary WEINBERGER. I think OPEC will make every effort to make it go up.

Senator JACKSON. They are already firming, and as you know, inventories are going down.

Secretary WEINBERGER. I worried about this. As you know, in February there was a lot of newspaper talk about how inflated our figure was. But it is all an estimate, and if the price goes up as you suspect, and it may very well, then we obviously would have to come back to ask for more funds to cover fuel requirements.

Senator JACKSON. If I read the budget deficits correctly, I think this cut that we have before us is just the beginning, Mr. Secretary.

Secretary WEINBERGER. Well, I would hope not, Senator, because as you see from the recommendations we have made, these are not wasteful items. These are not unnecessary items. These are items which have through a great deal of work and effort and with a great deal of pain and suffering, we have extracted from the original proposal. If anyone wanted to cut deeper, we couldn't answer the question that I just answered for Senator Thurmond. We think we would be very much more into delaying the rearmament of the country and weakening ourselves in the arms reduction negotiations.

Senator JACKSON. Well, I am merely suggesting that what I sniff around here is that deficits will be growing. I noticed yesterday Dr. Henry Kauffman, who has a pretty good track record, indicated that the fiscal year 1983 budget deficit, based on the fact that the economy is still declining, will hit $150 billion. We are living in a world of assumptions with different figures morning, noon, and night, but I don't think that is far out of line.

If those numbers hold up I think we are going to be confronted, Mr. Chairman, with a very serious budget deficit.

Secretary WEINBERGER. Well, the numbers have been jumping around like kangaroos ever since last November, but if the feeling is by any kind of majority that we have to compensate for that kind of deficit by making deeper cuts into defense, I could not in any sense tell the committee or any other group, in any degree of honesty, that we were not seriously interfering with the very vital need to rearm the country as quickly as possible.

Senator JACKSON. Thank you.

Chairman TOWER. Senator Goldwater?

OPPOSED TO DEFENSE BUDGET CUTS

Senator GOLDWATER. Mr. Chairman, with the exception of one or two items, I am opposed to cutting the defense budget. I think we are at a very dangerous time in the world's history, and I think we should be going forward and not backward. That is all I have to say.

Chairman TOWER. Senator Nunn?

Senator NUNN. Thank you, Mr. Chairman.

Mr. Chairman, first I want to thank you for all of the work you have done in the last 3 or 4 days in getting before us these proposals, which I think is the orderly and correct way of going about trying to go along with the Budget Committee. I want to thank all of our witnesses, Secretary Weinberger, General Jones, Mr. Carlucci, for being here this morning, which I think is enormously helpful.

Mr. Secretary, I have several questions that get into details, and I see you have Mr. Borsting with you, so if you want to farm these out, I will be delighted for you to do so.

INFLATION PERCENTAGE

Mr. Secretary, how much was included in your fiscal year 1982 budget to cover inflation?

Secretary WEINBERGER. I think we used an 8.7-percent figure.

Mr. BORSTING. Are you after total dollars, Senator Nunn?

Senator NUNN. Dollars, too, and percentage, if you have it.

Secretary WEINBERGER. I thought you wanted the inflation assumption that we were using.

Senator NUNN. That's right, but in dollars. Dollars, how much it amounts to, you have to have the percentage in order to get to dollars.

Secretary WEINBERGER. My memory is 8.7 percent.

Mr. BORSTING. I have it here. I will get it for you in a moment.

Senator NUNN. The number I have here is $6.1 billion. I would ask you to get your staff to check that out.

Secretary WEINBERGER. Yes.

INFLATION

The composite inflation rate for DoD pay and purchases from industry is estimated at 8.8 percent in fiscal year 1982. This is comprised of a 9.3 percent composite pay rate for military and civilian personnel; 1.2 percent for fuel, 9.6 percent for major weapon systems; and 9.2 percent for all other purchases. Outlays in fiscal year 1982 increased $26.7 billion over fiscal year 1981. Of this amount, $12.8 billion was necessary to cover inflation and $13.9 billion was for real program increases. TOA in fiscal year 1982 increased $38.1 billion over fiscal year 1981. Of this amount, $12.4 billion was required to cover inflation and $25.7 billion represented real program growth.

Senator NUNN. I am informed that that excludes fuel, what Senator Jackson was talking about. We are talking about nonfuel.

Mr. BORSTING. Is this purchase inflation?

Senator NUNN. Yes, purchase inflation. That excludes also your major procurement items. I am talking about your purchase inflation, and it excludes your procurement items.

I have the same question for fiscal year 1983. How much is included in your fiscal year 1983 budget to cover inflation?

Secretary WEINBERGER. We will get that for you in dollar terms.

Senator NUNN. Also the percentage assumption is fiscal 1982, Mr. Secretary, you said you recall was 8. something?

Secretary WEINBERGER. I believe that, but we actually can't stand on that.

Senator NUNN. The figure that I have is 7 to 8 percent.

Secretary WEINBERGER. In 1982 we used 8.3 percent, and in 1983 we used 7 percent.

Senator NUNN. The numbers I have are 5 to 6 percent.

Mr. BORSTING. The first quarter was slightly higher, but the second quarter was down.

Senator NUNN. The average is what I am getting at. To my understanding, the first quarter was up or slightly above and the second quarter was down.

Mr. BORSTING. Yes.

Senator NUNN. The information I have, and you can check this, is the administration estimated 8.4 percent for the first quarter. The actual rate was 9.5. The administration estimated 8.2 percent for the second quarter, and the actual rate was 3.6.

Mr. BORSTING. That is correct.

Secretary WEINBERGER. I think with the two quarters together we are reasonably close, but perhaps a bit under. We can get it exactly for you.

[The information follows:]

INFLATION

The projected inflation rate for DoD in fiscal year 1982 is 8.3 percent. The Department of Commerce, Bureau of Economic Analysis has calculated Defense purchase inflation at 3.8 percent in the first quarter and 1.3 percent in the second quarter. The first 6 months at an annual rate above 10 percent compared to the projected rate of 8.3 percent.

Senator NUNN. Well, the other question, I will ask you for the record and I will give you the figures that I have, and we can work on the assumption that they are correct this morning, but if you have other figures that you can come up with, I want to have those as soon as possible.

The figure I have is if you took these lower rates for two quarters based on actual experience, no projecting ahead, but actually what has occurred so far, and then you went back to the budget GNP deflator, the figure I have there is that in fiscal year 1982 spending, you could subtract $1.1 billion in budget authority and $700 million in outlays.

Mr. BORSTING. We could check that. You are just talking about nonmajor procurement?

Senator NUNN. That is right.

Mr. BORSTING. Well, we had a 7-percent GNP figure for 1982.

I am sorry, a 9.2 figure for 1982.

Well, we will check it out.

[The information follows:]

INFLATION

If we compare budgeted inflation with actual inflation for defense based on the first two quarters (without projecting ahead) amounts would have to be added to DOD budget authority and outlays, to protect planned program increases.

If we compare budgeted inflation with the actual GNP rate for the first two quarters of fiscal year 1982 (without projecting ahead) DOD is about 2 percentage points higher. Each percentage point in the rate of inflation has a dollar impact on nonpay, nonmajor systems of about $600 million in DOD outlays.

Senator NUNN. The other thing I would like for you to check is this. My information indicates that if you take those figures out, based on what has actually occurred so far, again not assuming anything different from what the administration has assumed in the future, this would affect, because of the multiplier effect and the tier effect, this would reflect in your fiscal 1983 spending $2.3 billion in budget authority and $1.6 billion in outlays.

The point I am getting to, Mr. Chairman, is this: If my figures are correct, then I would submit we can continue the administration's exact assumptions about inflation in the future and not touch those, which I would not suggest because that is difficult to do, but we could add back to what the Secretary has described here this morning a total of $2.3 billion in outlays and $4.4 billion in budget authority, and if Mr. Borsting has different figures, then we could adjust those figures, but there shouldn't be any argument about those figures. That is said.

Therefore, I would ask the Secretary and his associates, Mr. Carlucci and General Jones, if the committee decides that these figures are reasonable based on things that already have occurred, then if you had the option of adding back $2.3 billion in outlays from this list of cuts and $4.4 billion in budget authority, which items would you choose?

Secretary WEINBERGER. Well, Senator, they are all so hard to put on the list in the first place, if you are offering us the possibility of putting some of them back, I think we would obviously owe it to the services and all, to go back to them and find out some of the things that they found most difficult to do here. I would guess from what our conversations were that, for example, the Navy would not want to retire ships that they did not plan to retire for 4 or 5 years, particularly some of the LSD's. The Marine Corps would pick very much the same thing.

I would suspect the Army would like to get away from some of the rotational changes where we are lengthenging terms of serivice, which has an unknown but originally predictable effect on morale, but which has some outlay savings, things of that kind. We would want to canvas the services and find out the things that affected them most.

I am sure the Air Force would want to not cut the tactical wing. That is quite understandable because it is our position that we should expand the Air Force tactical wings ultimately. So these would be areas that I would suspect we would be talking about if the suggestion you made were adopted by the committee.

Senator NUNN. Well, Mr. Secretary, if my figures are correct, doesn't it make sense to take that money that we have already saved on inflation and not cut force structure?

Secretary WEINBERGER. If it is indeed there. We have two problems. Even though you referred specifically to areas of inflation or periods of inflation where the results are known, there are two problems with it. One is the special nature of the military, even

though you are exempting the major procurement, and the other, to a considerable extent, does involve estimates of the future.

Senator NUNN. No, it does not. I am not estimating——

Secretary WEINBERGER. I know you are talking about past ones, but if future ones are wrong on the other side, then you are going to be short on that side, even though you are taking an actual set of figures for the first two quarters.

Senator NUNN. Well, I have carefully avoided taking the future. If you take the future and project the inflation rate that we have now, if Senator Jackson's reference to Henry Kaufman is correct, inflation is not going to be a problem for the next few months anyway because we are going to have a very slow economic recovery. We won't argue about that. I am taking only what has already happened. I am saying let's consider the administration's assumptions exactly as they are in the future.

Secretary WEINBERGER. I am not arguing with you. I am just pointing out that a couple of problems would still remain with that, but it is an interesting suggestion, and to the extent that it would enable some of these proposed reductions to be put back, we would obviously not oppose it.

Senator NUNN. Mr. Chairman, I would like very much to get these figures back sometime this morning during our deliberations to see if our figures are right.

Chairman TOWER. We will try to get them, but, of course, our problem is we have to go with the Budget Committee's baseline, which is the CBO stuff. What we are doing really is adjusting the CBO assumptions.

Senator NUNN. My figures are CBO numbers. That is using the same baseline, using everything. If my figures are correct, at some appropriate time I would move to add back $2.3 billion in outlays and $4.4 billion in budget authority, and it would be very helpful if I could get from the Secretary a list of the way he would like this added back.

Secretary WEINBERGER. We obviously have started working on that immediately, Senator. That would be up to you and I would hope within the hour.

Senator NUNN. Thank you. My time is up.

Chairman TOWER. Senator Warner?

MX PROGRAM

Senator WARNER. I would follow on Senator Jackson's questions about the MX program. I was looking at these figures to see if we could clarify them. You say that we are accepting the present posture of the House and Senate on procurement. I see a disparity there.

Secretary WEINBERGER. Senator, the Senate and the House took quite different actions on the MX. There were some that involved common amounts. I think it is roughly $300 million. Those common amounts we have put into our assumptions in the recommendations that are before you, even though we do not accept those or do not agree to them, but they are there because both the House and the Senate committees have taken those common actions. Then you

diverge pretty widely, and we are not assuming that those are part of our base here.

Senator WARNER. So roughly $300 million falls out of that?

Secretary WEINBERGER. That is correct, $300 million is the amount that were roughly common deductions between the House and the Senate.

Senator WARNER. Based on our discussions the other day with the President, it is still your hope not to restore interim basing of Minuteman, but to restore some level of production of the missile itself as opposed to the zero deletion.

Secretary WEINBERGER. We do not have a formal final Presidential decision on that, Senator, but we are perfectly certain that we do want the missile procurement to continue and the missile procurement funds for spares to continue, both of which were reduced by the Senate committee. We would want to have the research and development that looked toward interim basing continued until there is some final basing mode adopted, presumably by December. The problem we have is that it is very hard for us to guarantee to you that we could give you the best possible permanent basing mode by a certain date. The reason, of course, is there are a lot of alternatives, some of them reasonably promising, that require more time to look at and some funds to do the research and development necessary. It is in that area, plus the procurement of the nine missiles themselves and spares that we don't want to give up. So those are not before you as recommended reductions this morning even though this committee has made them.

Senator WARNER. But I understood the President to say that he holds to that December 1 deadline.

Secretary WEINBERGER. Yes, and we are going to try to meet it absolutely. It is just that it is a little bit like saying that we direct you to find a cancer cure by December 1. It is not always possible, but we are going to work very hard toward it.

"OHIO" CLASS SUBMARINE

Senator WARNER. Let's move on to the other major impact, as I interpret it, in the strategic program, and that would be with the ninth *Ohio* class submarine. It seems that you are pulling out about $279 million to prepare for a switchover on that submarine from the C–4 to the Trident II. Is that correct?

Mr. CARLUCCI. Senator, if I could explain that, this is just a question of phasing, instead of retrofitting.

Secretary WEINBERGER. You start off with the submarine with the new missile.

Mr. CARLUCCI. Yes, with the new missile, and therefore we saved the money we would have spent on retrofitting.

Secretary WEINBERGER. You have a little period of delay when you don't get the submarine equipped with the missile but you go directly to the D–5.

Mr. CARLUCCI. You are at sea trials without a soft target capability in the Trident sub.

Senator WARNER. But you would have just a few months delay in the actual IOC of the whole submarine.

Secretary WEINBERGER. Yes, this essentially is the decision the British Government made with their submarines, to bypass the C–4 and go directly to the D–5, even though the D–5 will not be with us until about 1989.

NAVY SHIPS DRAWDOWN

Senator WARNER. General Jones, in light of the amounts, that will soon be made public, of the 22 ships of the Navy, already we see a drawdown of your NATO strength occasioned by the British diversion to the Falklands. It seems to me this will compound the naval situation with NATO. Of course, we would hope the phasing is such that the Falklands is resolved and that part of the British commitment to NATO would have been returned and then this would phase out.

But that may not be the case.

General JONES. That is correct, Senator. This would not occur until the 1983 budget. Quite a few of these are in the Pacific, so they do not come just from NATO. As you know, many of these systems are old and the Navy says they need their combat systems upgraded in order to continue on effectively. The Navy said that because they will be able to redistribute people, they will get better effectiveness out of the remaining ships. That was very, very critical with them, to take trained people and use them in other areas.

Obviously, we would not cut the 22 ships if we did not have to come up with budget cuts.

Senator WARNER. Mr. Chairman, I would like to ask the Secretary a question with relation to the Falklands this morning. What is the present posture of the United States vis-a-vis supplying any of the equipment which would be categorized as military to the United Kingdom?

Secretary WEINBERGER. [Deleted.]

Senator WARNER. Thank you very much, Mr. Chairman.

Chairman TOWER. Senator Humphrey?

Senator HUMPHREY. Mr. Chairman, the administration proposes to reduce its request for the Department of Defense. In the intervening time between the original request and this latest proposal, has the Soviet threat diminished at all?

Secretary WEINBERGER. No, sir. I think it has increased.

Senator HUMPHREY. You think it has increased in this period of time?

Secretary WEINBERGER. Yes.

ECONOMIC AND BUDGETARY CONSIDERATIONS

Senator HUMPHREY. Then this change is not driven by Soviet capability, but by economical, political considerations?

Secretary WEINBERGER. It is driven, as I said, by the economic situation and the desire to try to improve that by reducing the total deficit. That is essentially it.

Senator HUMPHREY. I recall as a student of political history that as a candidate John Kennedy severely criticized the Eisenhower administration for subordinating defense to economic and budgetary considerations. It seems to me we are doing precisely the same thing.

Secretary WEINBERGER. Well, there was a slight difference, Senator. In that case there was a missile gap which was not there and which was revealed shortly after the election not to be there. We are not subordinating it to political considerations. We are subordinating the speed and the pace at which we regain our military strength to what is perceived to be an economic benefit that will flow from the general reduction of the deficit, should that be obtainable.

It was pointed out earlier by one of your colleagues that the defense portion of that deficit is not all that large and, because of the threat, the request for reductions of defense rearming are not of the magnitude that have been talked about with some of the other components of the deficit. But there is the hope that a general reduction of the deficit will result in an improved economic situation, specifically a lowering of interest rates, and that is the basis of the President's position.

As Senator Tower said, he was completely firm in his determination that he would not seek any further reductions, that this was a floor and a ceiling as far as reductions in defense are concerned.

Senator HUMPHREY. Well, I cannot agree wholly with your analysis. There is no doubt that a reduction of the deficit would improve the interest rate situation and lead to an economic recovery. But that does not dictate reductions in the military sector.

Secretary WEINBERGER. I was identifying that as the reasons which had led to the recommendation, Senator.

M–1 TANK PROCUREMENT

Senator HUMPHREY. Will you elaborate on the effect of the proposed reduction on the M–1 program. What does that entail?

Secretary WEINBERGER. At the moment, we are running about 30 a month of the M–1 procurement. We had budgeted for and had requested the funds that would take that to 90 a month, on the grounds that that would give us what we needed more rapidly and at a somewhat better unit cost.

What is suggested now, to save $12 million in outlays, is that we reduce that production rate to 60 a month. That means that at the end of next year we would see what the fiscal situation was and see if that still seemed to be a suitable rate or if we could get to the 90 then. It saves $12 million in outlays and about $200 million in budget authority.

Senator HUMPHREY. Has the total buy, the anticipated total buy, been reduced?

Secretary WEINBERGER. No, sir.

Senator HUMPHREY. Then this will result in a stretchout, will it not?

Secretary WEINBERGER. Yes, to the extent that we had planned and hoped to be able to achieve a 90 per month rate of production in fiscal 1983. We were not absolutely assured that that could be achieved, but we wanted to budget for it and to drive just as hard to achieve it as we possibly could.

Senator HUMPHREY. Do you have any estimate of the increased unit cost as a result of this recommendation?

Secretary WEINBERGER. I think we will run a little under 15 percent.

Senator HUMPHREY. Well, here we go again, Mr. Secretary. After all of the analysis and lamentations about increasing unit costs and cost overruns we are being pennywise and pound foolish, although oftentimes it is more the fault of Congress and the administration than it is that of the Department of Defense.

We are taking a step that might look good on paper this year, but which in effect is adverse to the interests of our country and adverse to the atmosphere in which we are having to fight for these defense budgets. By trying to make the budget look good on paper this year, we are going to drive costs up again.

Secretary WEINBERGER. No, sir. One of the reasons that this particular item was picked—and obviously they were all picked with great reluctance—but one of the reasons this particular item was picked was because of a lack of certainty that we would indeed be able to reach the 90 per month rate of production.

Additional facilities would have been required, and there has been a change, as you know, in the production company, and we did not have the certainty that we would be able to reach the 90 per month. Therefore, rather than ask for funding which we might not be able to use in a period of real stringency, we felt this is a proper item to request a reduction in the budget to get to 60 a month.

It still represents a 100-percent increase over what we are getting now, and we believe we can achieve that fully. But ordinarily I would certainly agree with you completely that stretching out or deferring and adding to the unit cost is not the best way to go, and indeed the objectives of the Department management initiatives have been to avoid that kind of thing, and quite successfully, I have to say.

Senator HUMPHREY. Well, there is a great deal of reduction in procurement of other kinds. It is not too easy to tell at first glance just what the effect is. But as a general statement, how are these reductions in procurement going to affect unit costs?

PROGRAM STRETCHOUTS

Secretary WEINBERGER. I think to some extent, if they are indeed stretchouts or deferments, it will add a bit. For example, one program we are going to do in 5 years rather than 4 will add about one-half of 1 percent to the total cost, the LAMPS program.

There are varying results all the way through, and as you have noted, we have terminated several programs rather than stretch them out, on the ground that the overall additional cost was not worth it compared with the ability to continue doing some things perhaps not quite as well with the weapons systems we already had.

Mr. CARLUCCI. If I may comment, Senator Humphrey, we have made great strides in dealing with the services on avoiding stretch-outs. I think as you go through this you will find that there are very few stretch-outs. We have named you only two that I can think of right now.

Unfortunately, when we get to this level of cut, it becomes so painful that the services come in and say, this is the kind of thing we just have to do, particularly when there is another rationale, such as the Secretary mentioned with regard to the M-1 tank and the problems associated with the LAMPS-3, which is one of phasing the production of the helicopter with the production of the FFG-7. So when there is another rationale as well, we have accepted it.

OPERATION AND MAINTENANCE

Senator HUMPHREY. Let me turn to O. & M. since that comes under the jurisdiction of the subcommittee I chair. I note that of the $3.2 billion in cuts, that is outlays, in this workup, nearly $1.5 billion is on O. & M. Again, we have heard this stanza before, it seems to me, and I do not recall a single witness before the subcommittee this year when we were focusing on the issue of readiness and its relation to O. & M. who disagreed with my contention that, while the fastest way to reduce outlays is to cut O. & M., it is also the fastest way to reduce preparedness.

Is that not what we are doing once again, after all of the hard lessons we have learned?

Secretary WEINBERGER. We are not doing it to the extent that it has been done before, Senator, and we are not doing it to a disproportionate extent to the cuts that have to be made. But if you are asking me, do I like to do it, the answer clearly is absolutely not, no, we do not. We understand the rationale for not doing it, but you do have a requirement here of trying to meet some outlay reductions quickly, and in the hope that they will have the effect anticipated by some on the economy as a whole.

We are doing some deferment of some facilities modernization. We are deferring most of those within the United States, as opposed to anything that involves the quality of life for the troops overseas, and we are deferring some of the maintenance backlog, although we are not adding to that backlog. We are reducing the rate of reduction of that backlog that we hoped we could make.

Senator HUMPHREY. I am very glad to hear that Europe will be exempted from these cuts in property maintenance. There is a great deal more that I could say. I have a very uncomfortable feeling in the pit of my stomach about what is happening here. It is a feeling of revulsion. I personally feel that the administration is subordinating defense to not only economic problems, but to political problems as well.

I hope that we are going to see a lot more fight from the White House for its defense programs and a greater effort to educate the American people, because the American people have an entirely inaccurate perception of how defense fits into total expenditures and the need for that defense. In large measure, that misperception is the fault of the White House.

Chairman TOWER. If I may be permitted to comment, in fact I do not think the administration went along with this eagerly. I think they were reluctant to do it. I think they felt forced into it by the fact that there were so many proposals around in Congress to reduce defense substantially, both Democratic and Republican.

In the Budget Committee the other night, we had one that would have whacked probably another $10 billion in outlays out of this thing. The Budget Committee defeated it 15 to 2 at least, but that is symptomatic of what is happening around here among both Democrats and Republicans who are advocating substantial reductions in defense.

Of course, the unfortunate thing is that the American people and the Congress have been inundated with a lot of antidefense propaganda. Also, the Washington Post, the New York Times, and the television networks. It has had its effect on our own Members, even some who ordinarily are strong supporters of national defense.

It is an unfortunate situation, and I do not disagree with what the Senator from New Hampshire said. I hope he does not think that I am enjoying this exercise, because I think he knows very well that I am not.

Senator HUMPHREY. If the chairman would yield, my complaint is that propaganda and misinformation and disinformation has not been rebutted.

Chairman TOWER. I would agree.

Senator Byrd?

Senator BYRD. Thank you, Mr. Chairman.

PROPOSED REDUCTIONS

Mr. Secretary, I regret that I was a little late in getting here, so if I ask something that you already indicated please say so.

Am I correct in assuring that your proposed reductions in the increase, reductions in the budget sent by the President, would be about $7.5 billion in budget authority?

Secretary WEINBERGER. Yes, sir.

Senator BYRD. What would it be in outlays?

Secretary WEINBERGER. The outlay effect of that would be around $3.2 billion, and that, reduced from the CBO budget estimate, brings it down to the $215.3 billion for the national defense function that the President spoke of in his meetings, discussions and negotiations with the Senate Budget Committee.

Mr. CARLUCCI. It actually brings it slightly lower, sir.

Chairman TOWER. If I might clarify on that, Harry, what it does is bring it down to the figure the Budget Committee adopted of $215.3 billion. In other words, we are getting it down to where the Budget Committee came out.

Secretary WEINBERGER. CBO figures, as I understand it, were those that were used by all these negotiations that we read about with the Budget Committee. This brings it down to that figure, sir.

Senator BYRD. Well, I was under the impression that the original figure, the original outlay figure, was $216 billion.

Secretary WEINBERGER. The original Defense Department budget was $215.9 billion, and the national defense function, the so-called 050 in the budget, which includes stockpiles and energy and all, was at $221.1 billion. But in the CBO base it was $224 billion.

Senator BYRD. Now, does this $215.3 billion compare with the $224 billion or with the $215.8 billion?

Mr. CARLUCCI. If I might try to clarify this, Senator, when you come down from the $224 figure to the $215 billion base, that

equates with the $3.2 billion in purchases outlays, off the President's budget.

Senator BYRD. I am still confused. Let me state it this way. Your original budget called for $215.8 billion.

Secretary WEINBERGER. For the Defense Department, yes, sir.

Senator BYRD. Now, what does this call for for the Defense Department?

Secretary WEINBERGER. This would call for about $209.4 billion, because in addition, you see, they also asked for reductions in the military pay aspect. So it would take us to $209.7 billion from the $215.9 billion. That is a zero increase in civilian pay and a 4-percent increase, instead of the planned 8-percent increase, in military pay. That would take us right down to that $209.7 billion figure that I gave you.

Senator BYRD. Well, now, a moment ago you gave me the figure of $215.3 billion.

Secretary WEINBERGER. $215.3 billion is the national defense function, which includes energy, stockpiles, and other things outside the Department of Defense, but which are assigned under the budget terminology to national defense.

Senator BYRD. Where did you get the $224 billion that you mentioned.

Secretary WEINBERGER. $224 billion was the original figure of the CBO, their estimate of what the President's budget would cost for the national defense function.

Mr. CARLUCCI. They made different judgments, Senator, on the spendout rate. They made different judgments on retirement pay reform, and they made different judgments on stockpile sales, and they made different judgments on the CPI rate for retirees.

Secretary WEINBERGER. The President's budget, sir, included a set of assumptions, as they always have to, and the CBO, the Congressional Budget Office, rejected some of those assumptions. They said it is going to cost a little more up here.

We have taken our reductions in the Defense Department portion of that from the CBO figures to bring it down to the outlay figure for the total national defense function that the President and the Senate Budget Committee agree upon, that is $215.3 billion, down from $224 billion. When you take the $215 billion national defense budget that the President submitted with these reductions, it pulls it down to $209 billion.

Senator BYRD. Well, if you deal only now with the national defense part of it——

Secretary WEINBERGER. Right, that is the big one, the overall one. That is the larger figure, 050, the national defense function.

Senator BYRD. All right. If you deal only with the Defense Department, the original figure was what?

Secretary WEINBERGER. The CBO put that figure at about $219 billion. Our problem is they dealt only with the 050. They did not have a figure specifically for the President's Department of Defense budget.

But if we take it at about $219 billion, then that figure, $218.6 billion, that figure has been reduced to $209.7 billion. You see, sir, you are dealing with two factors. You are dealing with military and civilian pay, which was not included in Defense Department

reductions from the President's discussions with the Budget Committee. That was set aside as an overall governmental reduction.

Then he also said that there would be Defense Department reductions that would bring the total outlays of the 050 function, which is what the CBO uses, to $215.5 billion. That is essentially what we have before you this morning. Our Defense Department reductions component of that 050, that brings the whole thing down to $215 billion.

Senator BYRD. Now, that $215 billion then compares with the previous $219 billion.

Secretary WEINBERGER. No, it compares with the previous $224 billion, sir.

Senator BYRD. Now, your $215.8 billion——

Secretary WEINBERGER. That was the president's budget that he started with for the Defense Department, and the CBO estimate of that was about $219 billion.

Senator BYRD. Right, Now, that $215.8 billion compares now with $209.4 billion?

Secretary WEINBERGER. Yes, sir.

Senator BYRD. So let us leave the CBO out for the moment. There has been a reduction of $6.4 billion.

Secretary WEINBERGER. It is more than that, Senator. Let me see. Well, that is about right. Yes, that would be the military pay and program reductions that we presented to you this morning. It is right in that range, yes, sir.

Senator BYRD. That is in spending?

Secretary WEINBERGER. That is in outlays, yes, sir.

Senator BYRD. Then your budget authority—how do you get a comparison now in budget authority on the same basis as we are talking about it on the outlays?

Secretary WEINBERGER. Well, the budget authority in the President's budget for the national defense function was about $263 billion.

Senator BYRD. Right.

Secretary WEINBERGER. That would be reduced by $7 billion, $7.3 billion, for DOD nonpay purchases.

Senator BYRD. So your reduction——

Secretary WEINBERGER. I am sorry, I forgot to include the pay reduction. That would take it to about $251 billion.

Senator BYRD. So then the reduction in budget authority would be about $10 billion in round figures?

Secretary WEINBERGER. Yes, sir, just about, a little over.

Senator BYRD. Thank you very much.

Secretary WEINBERGER. Thank you, sir.

Chairman TOWER. Senator Denton?

Senator DENTON. Thank you, Mr. Chairman.

Mr. Secretary, how much real growth in defense spending remains after the $9 billion reduction from the CBO outlay base?

Secretary WEINBERGER. About 7.7.

Senator DENTON. 7.6 what?

Secretary WEINBERGER. Percent. I am sorry, I misread it. It is 7.7 percent in outlays, 10.3 percent in obligational authority in real terms.

Senator WARNER. If the senator would yield. Is that after the cuts we have discussed today?

Secretary WEINBERGER. Yes.

Senator WARNER. 7.7 outlays and 10.3?

Secretary WEINBERGER. Yes.

Senator DENTON. Well, I share Senator Humphrey's feelings. I believe the threat as you experts perceived it called for the previous recommendations, and also where the threat is not that precisely defined that the recommendations have to be on the side of prudence, and that the President realizes we cannot do more than the political traffic will bear.

The chairman in his opening remarks addressed that, but I hope that the cuts are not decisive. I believe that they are not decisive in terms of weakness.

I of course deplore the trend, as all of us here do.

I would like to mention, Mr. Chairman, that there is a growing unrealism which reflects what the traffic will bear, and again the Senator from New Hampshire mentioned that and talked about education. The Department of Defense and CIA recognize that maybe if we knew a little bit more about the threat in South America in terms of the Cuban, Nicaraguan, El Salvador thing, a better educational environment would result, and they undertook to do that.

We had a threat briefing in the Senate not long ago, which may have helped some. I cannot blame it all on the White House either, Mr. Chairman, although I deplore with Senator Humphrey the need or the lack of education on this matter. Increasing attention is being focused on ground zero, nuclear freeze, the antinuclear sentiment in Western Europe, and we have to let our population realize that the gentleman sitting at this table and you, Mr. Chairman, and the members of the committee are devoted to peace, justice, happiness, and well-being and not to war.

PEACE ACADEMY PROPOSAL

I wonder if this group knows anything about the proposal for the Peace Academy. There are several members of this committee who I think will decide to get off as cosponsors, but I think there are 63 Members cosponsoring at the moment. There were 52 when the bill was actually presented on the floor. As much as I respect the Members who have cosponsored and originated the bill, I am quite convinced that a discussion on the floor, unless we join the issue early, is going to depreciate or erode the basis of understanding of what is required to preserve peace and justice, of what the definition of peace is.

Are you familiar with this?

Secretary WEINBERGER. Is this the Hatfield proposal?

Senator DENTON. It is actually in the name of Senator Matsunaga at the moment. It has been a project of Senator Randolph's for many years.

Secretary WEINBERGER. I am afraid I am not familiar with it.

Senator DENTON. I will invite your attention to it. I will be in touch with you about it and also with General Jones.

I am afraid that the context in which it arrived on the Senate floor was most unfortunate.

OMB right now is unaware of the importance of it and is simply going to oppose it. Well, you cannot be against peace. I have an alternative proposal which I would invite everyone's attention to later.

In the business of education, I would say to Senator Humphrey that there are Senate subcommittees, such as the one I chair on Security and Terrorism, which undertake to provide the kind of education that you are talking about. Unfortunately, you do not have time to read the doggone findings and the others do not have time to hear it.

I attended a meeting of the Foreign Relations Committee when they were being briefed by the CIA on a certain event, and the word "Carlos" came up and a gentleman who will be a candidate for President said "Who is Carlos?" Nobody on that committee—and there were 16 present—knew who Carlos was.

Now that is the kind of educational level that we have here in the Senate regarding education in defense and the various spectrum regarding our security.

Secretary WEINBERGER. In our position, we certainly have to keep up with Carlos, Senator.

Senator DENTON. Yes, we certainly do. I have tried on the floor and will continue to do so, Mr. Chairman, to show something. I believe we have not gotten into it, but I will recommend this to you gentlemen as another element of education which we can undertake, and that is this: Defense is not simply a spending category which subtracts from well-being. The effect of failures of our foreign policy, such as in Vietnam, in Africa, and in Latin America, those failures which have a relationship, a very direct relationship to spending in the armed services field and to the way we look at our armed services, those failures have had a devastating effect on the domestic economy.

Our businessmen do not understand nor perceive that. Our Congress does not understand nor perceive that. There is a relationship between a misperception of armed services, foreign relations, and the domestic economy. There is a misperception. We have to clear it up. We have to show that off Vietnam there is oil, for example, which we do not have. There are human beings over there by the tens of millions who have lost all freedom and any resemblance of human rights. The psychological effect of the results of Southeast Asia has an impact on our economic leverage around the world. There are strategic minerals in Africa which we are forfeiting by virtue of an inadequate foreign policy, again because the traffic will not bear it, because the educational level is not that high.

The same thing is now about to take place with respect to Latin America in spades, particularly with the conflicts presented by the British-Argentina situation.

So can we undertake to show—link between the domestic economy and our national security policy? For example, do you think, and I hope this is not misunderstood by our Mideastern friends, do you think that in 1960, they would have tripled the price of oil in 1 day? I say no, it was not even in their best interest when they did it in the 1970's.

What are the reverberations, the multiplier effect in our economy, as a result of that kind of failure and perception in our foreign policy? That is the kind of education that the businessman, the older person, the common ordinary citizen, and the Senators need at this point. They just cannot see defense as taking money from the pocketbooks of our people and milk from the mouths of babies.

Quite the contrary, inadequate understanding of it in the past 15 years or so has led to domestic economic disaster. I hope we can bring that out.

Mr. Chairman, I am sorry I went on like that, but I think it is a very important item, which you understand very thoroughly and most of this committee understand it extremely well. But we need to make headway on this particular issue, and I do not think we have ever addressed it.

Secretary WEINBERGER. I certainly do not have anything that disagrees with what you said, Senator, at all. I do think it is important always to couple when we have groups talking about peace, to couple the two together, that is what we want, what we need, what we have to have is peace with freedom.

Senator DENTON. With justice.

Chairman TOWER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

Mr. Secretary, I am trying to work through this arithmetic and I am having just a bit of trouble. Maybe you can help us out.

TOTAL NATIONAL DEFENSE FUNCTION

As I understand it, we have to find $5 billion in outlays, roughly, under the Budget Committee directive, and according to the CBO our bill that is already on the floor cut $1.6 billion in outlays, which would leave about $3.5 billion or $3.4 billion. To the extent that we have been able to get into your arithmetic here in just the few minutes that we have, it would seem that you are recommending $3.2 billion in outlays.

Secretary WEINBERGER. Senator, I think your initial assumption is wrong. The President and the Senate Budget Committee agreed that the outlays for the Department of Defense and the total national defense function, the 050 function, should end up at $215.3 billion, and the outlays reductions that we have recommended bring you to that figure.

Senator LEVIN. According to our review of this, there are a number of items that you are recommending for cuts that we have already taken for cuts, and I would like to just identify a few and maybe you can clarify the confusion on this.

$300 million in lower fuel cost outlays, $146 million in currency adjustments, just to give you two of them.

Secretary WEINBERGER. Are you taking $370 million in lower fuel prices and $155 million in foreign currency adjustments?

Mr. CARLUCCI. If I might clarify this: Because the committee also had some adds, by coincidence our figures correspond. So I think the committee staff can make the necessary deletions in adds and you will come out at approximately the same levels.

Senator LEVIN. Secretary Lehman made the following statement a few weeks ago in a Navy Times interview. He said: "If cuts

were made, and we see no place where cuts can be made, we would take cuts in programs, go down to one carrier instead of two, go down to one attack submarine, rather than cutting into personnel compensation."

Is that the position of the Department of Defense?

Secretary WEINBERGER. No, sir. The position of the DOD is before you.

Senator LEVIN. Do you know whether that is still his position? Have you talked to him?

Secretary WEINBERGER. I would doubt it very seriously. [Laughter.]

Senator LEVIN. Have you talked to him recently about that?

Secretary WEINBERGER. Quite recently.

The cuts before you, in all seriousness, Senator, are approved by the Navy and there are naval representatives here who can elaborate in much greater detail and with far greater expertise than I can.

Senator LEVIN. I am wondering if General Jones, Chairman of the Joint Chiefs, could give us his comments about the relative importance of pay versus the aircraft carriers, as the Secretary of the Navy indicated.

General JONES. Senator, I do not want to get into a comparison of those two isolated items. We are concerned about the quality of life issues, but I do not want to try to compare a carrier with the pay.

SAVINGS CUTS EXCLUDE PAY

Chairman TOWER. May I interject something here? We are not getting credit for any reductions in pay in terms of this $5 billion cut. That is excluding pay.

Senator LEVIN. I understand that. But if we are going to swap aircraft carriers I want to know.

Chairman TOWER. Well, we are not actually swapping.

Senator LEVIN. I understand that. But if later on we were going to try to preserve the pay in violation of the Budget Committee's assumptions, we have to look at the carriers now in order to do it.

General JONES. I think, Senator, that is comparing apples and oranges. Pay represents an immediate outlay. Carriers spend out very slowly. Therefore, because of the spending rate, one carrier would be a very small outlay amount and it would make very little difference in the pay account especially in the first year. That is why I say it is like apples and oranges.

Senator LEVIN. Very large impacts in later years, though.

General JONES. Yes.

Senator LEVIN. In later years we are going to be having meetings like this, wondering where we are going to come up with money to meet the Budget Committee marks, and aircraft carriers may only help us $12.50 this year, but the year after next and the year after that they are big money items.

Secretary WEINBERGER. Senator, I am very much afraid you are going to have meetings like this in future years where you are going to want to know how quickly you can add.

Senator LEVIN. I think we will have both kinds of meetings, as we have had this year.

Mr. Secretary, you have indicated $4.5 billion in outlays will be saved in 1984.

Secretary WEINBERGER. I am sorry? I have indicated what?

Senator LEVIN. You have indicated there were $4.5 billion in outlays for 1984 which these savings in fiscal year 1983 will produce.

Secretary WEINBERGER. Yes.

Senator LEVIN. I am wondering if you could also give us that figure for 1985.

Secretary WEINBERGER. I think it is a little higher, maybe $4.7 billion, something of that kind. That is because the figures that we have chosen, the items that we have chosen, have a very much larger immediate outlays impact, and what you are getting for the out years is that you are going to be getting continuations of those things, rather than big increases.

For example, the four battalions and the tactical air wing and things of that kind—so you do not have large increases in the subsequent years. You have continuations.

Mr. CARLUCCI. That does not include the annualization of the pay reduction.

Secretary WEINBERGER. That is correct.

Senator LEVIN. Were your decisions as to what to cut affected not only by the impact this year, but also by the out year budget numbers of the Budget Committee?

Secretary WEINBERGER. We tried to do the best we could to protect readiness and modernization, and within those broad guidelines of protecting those items tried to get items that have larger immediate impact outlay. Again, with all of that the overriding consideration was, is this item somewhat lower priority than the items we are keeping based on the assumption that all of them are basically necessary, they are all validated requirements, as the chairman said.

So those were some of the factors that went into the choice.

ACTIVE SHIP RETIREMENTS

Senator LEVIN. Can you tell us the average service life that was left in the 22 active ships that are going to be cut?

Secretary WEINBERGER. Yes, let me see if I can find my sheet. The average life would probably be about 3 to 4 years. That is an average. Many had 1 or 2 more years, and some had a bit longer than that. But I would guess on the average roughly 3 to 4 years.

Senator LEVIN. We are refitting now a couple of the old battleships, is that right? We are not cutting that out?

Secretary WEINBERGER. No, to get the immediate firepower at about a fifth of the cost that we could to acquire that with any other platform.

Senator LEVIN. All right. These 22 ships, how much firepower are we losing there?

Secretary WEINBERGER. Well, firepower that the destroyers have and that the LSD's for assault purposes—it is a little hard to equate it in a simple lump figure. But they are ships that are being replaced. The ones that have the shortest life left obviously will be

replaced first. But all of them will be put in a situation in which they can be brought back to active service with a much lower cost than pulling a ship out of mothballing and in much sooner time, some as little as 2 to 3 months.

Senator LEVIN. None will be mothballed?

Secretary WEINBERGER. The plan at the moment would be only to mothball the very oldest destroyers. I do not think there have been final plans on that, Senator, but what we have tried to do is estimate a savings that comes from taking them out of active service, eliminating some of the overhauls that would be required on some of them because they will be out of service, and the newer ones, putting them in a form of reserve that enables us to take them out far more rapidly than the year or two that is required for full mothballing.

TRIDENT SUBMARINES

Senator LEVIN. Are we going to save money by not putting Trident I missiles on two of our Trident submarines?

Secretary WEINBERGER. Yes, sir. We have a savings that is envisioned for that. That simply means that for a few months those submarines will be at sea, they will not have the ability to hit the soft targets that the C4 could do, and when they get the D5 they will not need refitting or retrofitting. The D5 will go directly into them.

Senator LEVIN. Could you tell us the average length of time that they will be in that less than adequate condition? You said a few months.

Secretary WEINBERGER. Let me see if we have that figure.

Admiral METCALF. It is a few months. In some cases it might stretch as far as a year.

Secretary WEINBERGER. Not more than a few months.

Senator LEVIN. Is it less than a year in most cases?

Admiral METCALF. We expect it to be less than a year, yes, sir.

Senator LEVIN. We are doing this for two subs, is that right?

Admiral METCALF. Yes.

Senator LEVIN. How much are we saving by doing that?

Mr. CARLUCCI. It is in the neighborhood of $250 million or $300 million. That is budget authority.

Senator LEVIN. By the way, are you still recommending that we eliminate the Titans?

Secretary WEINBERGER. Oh, yes. That is not imvolved in this. That is in our original budget request.

Senator LEVIN. Even though this committee put that back in, do you take that as a savings? How do you do that?

Secretary WEINBERGER. I mentioned to the chairman this morning, Senator, that the primary figures of the Senate committee report that we are using are those where there is a common reduction between both the House and Senate committees, but that we have put back into our request this morning, so to speak, some items that you did take out or defer. Those are put back with full respect, because there are items that we would have planned to appeal in any event.

Mr. CARLUCCI. The figures, Senator, on the Trident submarine are $286 million in budget authority, with $17 million in outlays.

Senator LEVIN. Is that for both subs?

Secretary WEINBERGER. Yes, it is a very longstanding item.

Senator LEVIN. Thank you. My time is up.

Chairman TOWER. Senator Brady?

Senator BRADY. Thank you, Mr. Chairman.

PUBLIC UNEDUCATED ON OUTDATEDNESS OF MILITARY HARDWARE

I have just a couple of comments since joining this body recently. One is how little the public really knows about some of the things that you have been talking about—the age of the fleet, the age of the aircraft, the age of the tanks. I think this is something that you take as something as given, which the public really does not have any idea about. I would second all of the comments that have been made about education. I am sure you all get very tired of tilting with the press.

But I would only say to you from being here a short period of time that you may be missing an opportunity in talking about some very basic simple stuff that is pretty graphic. If you talk about ships that are 26 years old or something like that, that is something that would hit home pretty quickly. So it might be money and time that is well spent on some pretty simple education as far as the American people are concerned, and I think you would find a lot of support.

Second, I would just say that the level of interest rates and economic conditions in this country are also a threat. It is not as easily portrayed as the other threat that we have been talking about, but in a very real sense it is one that could affect the Defense Department outlays in the future if we do not get a return in that particular sector. So I would commend the chairman for calling this meeting so quickly, and the Secretary and his associates for answering so quickly the President's request.

Thank you, Mr. Chairman.

Senator HUMPHREY. Mr. Chairman, may I have one more question.

Chairman TOWER. Yes, we can go to a second round of questions now. We can take them in the order of seniority.

Senator Warner?

Senator WARNER. I will defer to my colleague, Senator Humphrey.

Senator HUMPHREY. Well, I will get my turn eventually. Go ahead, John.

INFLATION FACTOR

Senator WARNER. Thank you, Mr. Chairman.

I was intrigued by Sentor Nunn's discussion of the inflation figures. He pointed out what I would have called a basic sweep-up item, in effect, as a consequence of the nationwide inflation figure going down, which we all laud. But it would concern me that we should not try to sweep up that money in the context of what we are doing right now, Mr. Chairman, for fear that some of our colleagues might also discover it and lay it on the table on top of the

$5 billion; and that is better that you fight to retain that flexibility because of an annualized approach to the problem.

While inflation hopefully will remain down, we could have a reverse in which case, as you balance the books at the end of the fiscal year, you will need a little stability. I am trying to prepare myself for a debate on this, Mr. Secretary.

Secretary WEINBERGER. Senator, the other point is one that I think I outlined somewhat imperfectly to Senator Nunn, and that is that he was excluding major weapons system from his calculations and found that inflation had run lower than the budget anticipated in some of those nonmajor weapons system acquisitions.

You will recall that up to now we have not had a suitable inflation factor for major weapons systems. I think as usually happens, the inflation factor in those is running above the estimate. So you might very well run us into a situation where you would not be serving the total cause very well by the kind of suggestion that he made.

We are gathering those figures as quickly as we can. We will have them for you. But I think you have put your finger on a very important caution on that whole exercise.

Senator WARNER. He raises a very important consideration and he has sort of been one of the watchdogs on this inflation figure for a number of years now. I would be reluctant to try to fill back some of the programs we have had to reduce today in anticipation of some of the savings there. You point out now that in major procurement we may well be over.

Mr. CARLUCCI. Yes, we are. One of the reasons that we would have some problems in major procurement is our agreement with OMB to add extra inflation in those accounts is just for the out years, so we have to consider a spend-out effect for fiscal year 1982 and prior budget authority.

Secretary WEINBERGER. We did not get our special indicator for those large items applicable until next year.

Senator WARNER. Yesterday the President made a very dramatic statement to the world with respect to the START talks. Of course, you were instrumental in working with him in developing that framework in the debate on what we are doing today and on the overall 1983 bill. It would be my understanding that there can be no anticipated savings in the strategic area as a consequence of what he said yesterday at this time.

Secretary WEINBERGER. Not at this time, Senator.

Senator WARNER. But in the out years?

Secretary WEINBERGER. We certainly hope that ultimately there will be. But negotiation with the Soviets is a very long, painful, and dragged-out process for the most part. I think that would be the height of optimism, to assume that we could make changes.

Now, we have done that in the past and not every successfully, because the Soviets have never slowed their spending down, but quite the contrary, they have always increased it. Yes we would certainly hope that if we got the kind of agreement the President is talking about in those farther out years, we could make that kind of savings. But we cannot assume it now.

CIVIL DEFENSE

Senator WARNER. I will just speak to the next item. I do not think we need to address it, really. This committee as a whole recommended a substantial reduction in civil defense. I was an individual who was at variance with the committee, but we nevertheless are bound by the committee action and will accept it when we go to the floor.

Do you think the administration should re-examine the timeliness of putting forward that civil defense program in view of the President's comments yesterday, or should we try to go ahead on the parallel force as originally established? The point I make is that this civil defense is becoming more and more a focal point of the discussions at community levels in this area.

I just do not want to see the President's program of yesterday begin to lose momentum because of added problems.

Secretary WEINBERGER. I do not at this point think we should reduce that. I know the argument that is made, that somehow it is very immoral to think about civil defense, because that implies some assumption that nuclear war can be won. What we look at, and I think what the President had in mind in making that request was that the United States has virtually no civil defense capability.

Senator WARNER. I am familiar with all the arguments, Mr. Secretary.

Secretary WEINBERGER. All I was about to say was I do not think you gain anything from the negotiations that are coming up, when you look at the enormous investment the Soviets have made in civil defense, which adds into the whole strategic equation. I do not think you can ignore that. The President felt that that was one of the reasons——

Senator WARNER. Well, I guess the only comment I wanted to make was at the time we go into conference it would be a conference item, and if you do have any rethinking you will let us know.

Secretary WEINBERGER. Yes.

Senator WARNER. We achieved such a big step forward yesterday that I did not want to see us get off the track.

Let me say now that a quick analysis reveals that you have taken out recruiting moneys as a part of this sweep-up program across the board for each of the services. Am I correct on that?

Secretary WEINBERGER. Senator, $36 million in outlays, in the aggregate.

Senator WARNER. Now, there was one other substantial item that of course goes to the career program, and that is the reenlistment bonuses, the $250 million now programed for fiscal year 1983. Did you make a conscious decision not to lower that sum?

MILITARY PAY

Secretary WEINBERGER. We did not specifically, no, sir. It is part of the pay reduction which has been treated separately from the exercise we are talking about this morning.

Senator WARNER. Well, military pay would go from 8 to 4 percent, and that 4 percent raise is across the board?

Secretary WEINBERGER. Well, the funds necessary for a 4-percent raise are across the board. It could be targeted.

Senator WARNER. Oh, I see. So you have not made a decision within the 4 how it will be allocated?

Secretary WEINBERGER. That is correct.

Senator WARNER. You would probably do it in proportion to your need rather than for an across the board?

Secretary WEINBERGER. Right. The reduction in advertising for recruitment is because the campaign has gone so very well and we have made some management improvements.

Senator WARNER. I am very pleased to see that.

Secretary WEINBERGER. But as far as the bonus is concerned, that is I think an important factor in the way the recruiting has gone. So we would look very carefully at any changes that would be proposed in that.

Senator WARNER. So at this time you are not suggesting any reduction in the $250 million bonus program?

Secretary WEINBERGER. Not specifically, no, sir. There may be some reductions that would be required as a result of the total pay decrease, decrease for the amount of money that we had requested. But there has been no decision on it.

Senator WARNER. Now, returning to the civilians within your Department, their anticipated 5 percent will now be reduced to zero?

Secretary WEINBERGER. That is correct. That is the overall governmental recommendation of the Budget Committee and the President.

Senator WARNER. What concerns me is that results in 3 consecutive years of civilians falling behind the military in terms of raises. Does that provide you with, shall we say, a morale problem?

CIVILIAN PAY RATES

Secretary WEINBERGER. Well, it conceivably could be without any question. In balancing it, we had many years in which the military pay raise was below the rates that it should have been and below civilian rates. But it is a serious factor and a zero increase, even though we have been able to get hold of inflation as well as we have, it is a potentially serious morale factor, yes, sir.

That is, however, an overall governmental decision and is not specifically directed at the military. In fact, the military increase of 4 percent is a major exception, and one which we are certainly glad to see, as opposed to the zero.

Senator WARNER. Of course, you have not experienced any real recruiting in civilians for work as such, whereas you have in the past years with the military experienced difficulties, and that justifies the disparity?

Secretary WEINBERGER. I think at certain levels and at certain skills we have had some trouble.

Mr. CARLUCCI. Particularly for engineers and scientists, we have an enormous difficulty at the senior levels in the civilian area.

Senator WARNER. So this is going to be a compounding handicap?

Secretary WEINBERGER. Yes, it will indeed. It is not a particularly exciting recruitment tool to advise that you have gone 3 years without a pay increase.

Mr. CARLUCCI. But mind you, the senior levels would be impacted by the pay cap in any event. So this particular measure would not add to the adversity problem that we have with the senior levels.

Secretary WEINBERGER. But engineers, of course, are short all over the country, and with the need we have for them we have felt the shortage.

Senator WARNER. Did the Comptroller wish to add his observation?

Mr. BORSTING. I would like to second that. These are areas, like computer sciences, where we have problems with both the junior and senior levels. But I would agree with Secretary Carlucci, the cap is the main thing with the senior level and the supply in certain other specialty areas, like engineers and computer sciences, also at the lower level.

Senator WARNER. Mr. Chairman, I join with you and others who wish to compliment the Secretary and his principal staff and the chairman for working throughout and the weekend to come up with what appears to be a very intelligent, although regrettable, reduction program.

Secretary WEINBERGER. Thank you very much.

Chairman TOWER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

BATTLESHIP REACTIVATION

I am wondering if somebody could help me with the outlay figure on the reactivation of the battleship.

Secretary WEINBERGER. Do you mean 1983?

Senator LEVIN. Yes.

Secretary WEINBERGER. We can get it for you directly. It is not one of the reductions, so I do not have it at the tip of my tongue.

[The information follows:]

The estimate of spending for the reactivation of battleships during fiscal year 1983 is $233 million. This spending consists of $71 million for the *New Jersey* in the fiscal year 1982 program and $162 million for the *Iowa* in the fiscal year 1983 budget.

Senator LEVIN. While you are looking for that, maybe I could ask you a different question. Since I asked you whether you agreed with the Navy Secretary on one item, let me see if you might agree with him on another. In that same interview, the Secretary said there is nothing more to be cut without cutting commitments; our force structure is too small to meet the commitments we have today, and there is nothing more expensive than losing a war.

Are we going to be cutting our commitments by the early retirement of these 22 ships?

Secretary WEINBERGER. Senator, what we are doing is reducing the active size, the active strength of the total fleet by these early retirements. These ships are still useable. They have a role to play and they are expensive to maintain and to operate, and when you have a choice of that kind you have to make some reductions.

What we are trying to do is maintain the force structure that we will have after the reductions are made in a higher state of readiness and in a state of sustainability that, because the force structure is smaller, can happen. But I would not want to mislead you

and tell you that we could take this number of ships out without weakening the Navy. Of course we are. It is not anything that anybody wants to do. We are weakening the Army by taking out battalions. We are weakening the Air Force by taking out the tactical air wing.

But we will be strengthening what is left and we will be continuing our modernization program, and we hope that we will be able in subsequent years, when the deficit situation and the interest rates all are improved, and be able to regain and add to some of the momentum we have started.

REDUCTIONS CUT NAVAL STRENGTH

Senator LEVIN. Would you say, then, that we are going to be cutting our commitments by weakening the Navy?

Secretary WEINBERGER. I do not know what specific commitments you are referring to. But we are not going to have the total degree of immediate naval strength that we would have had had we not had to make these reductions. We have described to you how we are able to get them out of reserve much more quickly than we would if they were fully mothballed, and therefore we think we have reduced the risks somewhat by that procedure.

Senator LEVIN. I have been informed that the outlays on the battleships are about $100 million. So assuming that, you are going to decommission 22 active ships to save about $173 million, while you are reactivating a couple of battleships at a cost of $100 million. Will you compare the tradeoffs on that?

Secretary WEINBERGER. Well, the tradeoff simply is on balance and after full consultation with the service, the feeling is the additional firepower, the additional strength that you acquire from a reactivated battleship at so much less cost than it would take to build a platform of that strength makes the tradeoff the one that we have recommended.

Chairman TOWER. May I intervene with a clarifying question? Will not the remaining ship service life of the battleships be greater than that of the other ships?

Secretary WEINBERGER. Oh, yes.

Senator LEVIN. Yes, and I was going to pursue that with this question. Would we not be better off keeping the 22 ships for a year or two and reactivating the two battleships a couple of years down the line, when these 22 ships were scheduled to be retired?

Secretary WEINBERGER. Senator, they are being kept and they are being kept in a situation, except the very oldest, where they can be brought back into service in a couple of months. That I think is preferable to stopping the very major reconstruction job that is involved in bringing the battleships up to modern standards. So the answer to your question is, should we not give up the battleships rather than delaying, if you delay you make them more expensive. This means that you give up the active status of these naval ships, but you do not throw them out. They are still there ready to be brought back and ready to be used.

MX MISSILE BASING SYSTEM

Senator LEVIN. This morning's paper has a reference to some kind of compromise on the MX. Is there such a new compromise developing that you know of?

Secretary WEINBERGER. No, the morning paper has so many things in it, it is often hard to keep up with. But the basic problem of the MX is the desire, which we all share, to find a very survivable ground-based system and to find, if it is to be the permanent basing mode, to find that as quickly as we can and as accurately as we can.

As you know, we have proposed putting them into some of the existing silos, Minuteman silos, while we spend a little more time on the search for that better permanent mode. But that situation is still roughly the same. There are a number of promising options that we are exploring and the paper may have had reference to one of those.

Senator LEVIN. In other words, you are not familiar with a new compromise or commitment relative to the MX?

Secretary WEINBERGER. First of all, as we said, we are trying to urge the committee to restore the funding for the first nine, the spares, and some funds to enable us to put them in on an interim basing. We want very much to get a permanent basing. We share your committee feeling fully that that is more desirable.

We are worried about putting them into something less than the best and most survivable basing mode. But we are trying our best to meet your deadline of December.

SHIP RETIREMENTS

Senator LEVIN. Let me go back to the ships for a moment, Mr. Secretary. What does the retirement of the 22 ships, which in my math is about 7 percent of our surface combatants, mean toward the goal of the 600-ship Navy?

Secretary WEINBERGER. It defers our naval buildup but does not make it impossible. It means that our surface fleet will grow a little more slowly than we had planned. But it also means, and I keep going back to this point, Senator, that these ships are not being sunk or scuttled; they are there, they are usable, and they can be brought out should the occasion require it, so that they would then be available to count against that 600 total. But if you just took them out of service and left them out of service, it would delay achievement of our near-term surface fleet goals by about 1 or 2 years.

[Additional information follows:]

While the early retirement of these ships will slow the buildup of naval forces, the 600 deployable ship goal will still be reached by 1990, since all but one of these ships was scheduled for retirement before that date.

Senator LEVIN. If I could ask you to shift gears for the moment to the question of competition——

Secretary WEINBERGER. The question of what?

SOLE SOURCE CONTRACTING

Senator LEVIN. Competition. This is not directly involved in the material you have given us this morning, but it is involved in the bill that is on the floor, and maybe Mr. Carlucci could help because he is familiar with some of this. One is the amendment which we adopted in the Senate last year and which this committee has adopted again this year on this bill, to increase the number of days for potential competitors to offer alternative bids in sole source contracting.

We find again that the Defense Department is opposing it in the House after agreeing to certain changes on the Senate side to make it palatable. But second, there is an amendment which I will be offering on cost overruns which would give the Armed Services Committees of the House and the Senate a real handle on those procurement items for which there has been a growth, an annual cost growth, of 15 percent in the prior year. Under the Nunn amendment, reports have to be submitted so that we can have these systems brought to our attention.

Clearly, each quarter under this amendment the committees of the House and the Senate would be authorized to stop the funding. They will not be required to. The funding would not stop automatically on any of these cost overruns, but the committees acting jointly could stop funding if they saw fit to do so.

Could you tell us whether you would be supporting or opposing that latter amendment?

Mr. CARLUCCI. Senator Levin, I would have problems with one more reporting system. We already have the SAR's and the Nunn amendment, and the Congress has full latitude, of course, to defund any program it wants to at any point in time. I would argue in favor of prophylactic action rather than action after the fact.

We have laid before the Congress a full program, a 32-point program. We have budgeted to that program and if the Congress supports this in the budget initiatives that we have taken, I am confident that we can make major headway in future years in getting the cost escalations under control.

Senator LEVIN. Do you understand that there is another reporting requirement from the DOD in this amendment?

Mr. CARLUCCI. As I listended to you, it sounded like that.

Senator LEVIN. It starts with the Nunn amendment, which requires this report, and this authorizes the committees to act based on that report during the year. There is no additional report from the DOD.

Mr. CARLUCCI. Well, that is up to the committees.

Senator LEVIN. You do not have any objection to the committees having that power, do you?

Mr. CARLUCCI. Well, I think we have a lot of problems with stopping programs in midstream, until we have had a thorough opportunity to look into the causes of the problem. I have discussed this with Senator Nunn. There are some problems which we have with his amendment and we are working with him to modify those particular aspects of the amendment that give us some problems.

But once again, you are getting into the question of managerial authority. If we are to be held accountable for these programs, we

have to have the authority to review the problems that lead to cost escalation and the authority to take appropriate action. Then if the Congress does not feel we have taken appropriate action, obviously it can defund a program or introduce an amendment any time that it wishes, provided the full Congress agrees.

Senator LEVIN. Do I have another minute, Mr. Chairman? I have not gotten the threat, but I think I may be over 10 minutes.

Chairman TOWER. I will give you another minute.

Senator LEVIN. Thank you.

Your position, then, on this specific amendment is you would not want to give that power to the two committees; it would only be the Congress that you would want to have that power? Is that the specific answer?

Mr. CARLUCCI. Well, you are asking me to invade the congressional area by answering that question.

Senator LEVIN. Do you have any objection to the committees having that power?

Mr. CARLUCCI. I would prefer that it be the full Congress. I see no reason to give that power to the full committees.

Senator LEVIN. Thank you, Mr. Chairman.

Chairman TOWER. Well, I would say I would object to it, and I think everybody else would object to it other than the two committees. You know, then they could veto something if the Appropriations Committee appropriated it. So why not apply it to all other committees?

Senator LEVIN. We do, Mr. Chairman. We have lots of vetoes in committees.

Chairman TOWER. Well, I do not think we do.

Senator LEVIN. Oh, yes, we do. As a matter of fact, we require committee approval in certain instances.

Chairman TOWER. Well, we can debate that one on the floor.

Senator Humphrey?

STRATEGIC STOCKPILE

Senator HUMPHREY. Mr. Secretary, I want to make it clear that my earlier criticism was not directed at you personally or at your office. I realize you are functioning as a loyal Secretary, and your colleagues likewise in their capacities.

I have one remaining question about the strategic stockpile, which is another matter over which the Subcommittee on Preparedness has jurisdiction. In the original 1983 budget submission, the administration anticipated outlays of $120 million, and of course the revenue that would be generated should go into a revolving fund. The latest revision now to the DOD budget anticipates an increase of $400 million.

Is someone prepared to discuss that?

Mr. BORSTING. It is not a change. It is just that the administration's proposal to sell slightly over $400 million out of the strategic stockpile is the same proposal that the President proposed in February.

Secretary WEINBERGER. It is one of the proposals that the Budget Office challenged as to whether the authority would be granted or

whether it would be reasonable. But that fundraising method, so to speak, is still part of the original proposal.

Senator HUMPHREY. Well, I have two things to say. The Budget Committee does not agree with this. The Budget Committee does not feel that that amount can be attained.

But in any case and more importantly, I think it is well to remind ourselves to quote from the Strategic and Critical Materials Stockpiling Act, that the purpose of the stockpile is to serve the interests of national defense only and it is not to be used for economic or budgetary purposes.

Unfortunately, that has been ignored at times in the past, more often than not.

Do you have any response to that?

Secretary WEINBERGER. Well, I would not want to comment on past practices in that particular course, Senator. I think that basically as far as we are concerned there are some minerals, metals, and materials that do need to be in the strategic reserve, and there are others, as you say, that have broader usage, civilian usage, price impact and all the rest. But basically, we believe that the items that we had in mind could be sold and raise that $400 million figure.

Senator HUMPHREY. Well, it does appear that your approach is designed to address the budget problem. Is that the case?

Secretary WEINBERGER. The sales that were contemplated were sales that had been run by the Department, which the Department felt it was safe to make, if that was the specific import of your question.

Senator HUMPHREY. Thank you, Mr. Chairman.

Chairman TOWER. Senator Denton, do you have any additional questions?

BMD BUDGET REDUCTION

Senator DENTON. Just one, sir. One figure jumps out at me on this Army R.D.T. & E. reduction plan, and it is about 5 times higher than the next highest number and maybe 100 times higher than the average figure on here, and that is the BMD system technology that is principally R. & D. My understanding of the rationale that the proposed BMD budget reduction is based on the elimination of funding for interim basing of MX.

I would have to ask, since the MX's R. & D. is substantially complete and since to some degree whatever basing for the land-based mode that you might choose eventually for the MX, I understood that to some degree the BMD would answer a very crying need, but requires significant R. & D. investment yet, with a kind of distorted proportionality, cutting from the huge MX program $800 million, we are going to cut $200 million from the R. & D. for something which has not as yet been realized even as a prospect. I have to ask about that.

Secretary WEINBERGER. Senator, first of all, we do think the BMD has a very high potential and is one of the more promising ways of guarding and safeguarding the missiles that we have. It is a far more capable BMD than any that we have developed so far.

This reduction has been made because it was a BMD research and development that was associated with the possibility of trying to protect the MX field where they were deployed. My understanding is that the committee itself made this recommended reduction, and this was represented as what might be called an acceptance of that in these recommendations we are submitting.

Senator DENTON. Well, in markup the committee recommended full funding. I understand there has been some discussion since that time, but I thought that you fellows were coming back down with this. In markup I am going to be told that this is the DOD recommendation.

[Additional information follows:]

This committee supported our request for $727.3 million for the BMD Systems Technology Program that was included in the President's budget and the House Armed Services Committee recommended a reduction of BMD funding by $467.6 million, or a reduction of 65 percent. We can continue a viable R&D program, on a somewhat retarded schedule, with a reduction of perhaps the $200 million that you mentioned but we cannot recommend reductions of the magnitude proposed by the House or by Senator Cranston.

Secretary WEINBERGER. This is one of the items that common action was taken on in both the House and Senate committees. So that it would not go to conference. We have listed it, though it is not in the President's budget, as one that we accept.

Senator DENTON. Do I understand that BMD will not be a conference issue? I would have to ask the chairman that. I think it was just said that the BMD reduction was not going to be a conference issue. If that is the case, I would be somewhat relieved, because we have given away some bargaining power before we even get to the conference.

Chairman TOWER. I have had some discussions with DOD myself on this. I think perhaps if you and I get together we can talk about this, Senator.

Secretary WEINBERGER. It is not an item that we present with vigorous advocacy; any reduction in BMD. As you know, sir, I personally have always felt that ballistic missile defense was something that we need to do on a far more effective scale than we are doing now, and the system that we now have is not good enough. But we ought to continue to pursue more promising approaches.

We did look at the records of this committee and if the Senator has some possibilities in mind, and the chairman, we would be delighted to reopen those discussions.

Senator DENTON. In view of the chairman's remarks, I will reserve any further comment.

Senator WARNER. Mr. Chairman, may I have one more question?

Chairman TOWER. Yes.

REDUCTION IN COMMITMENTS

Senator WARNER. This question on a reduction in commitments worries me. My understanding is commitments are mutual defense pacts with a number of nations, and that is in the area of 40 nations. Is that a ballpark figure, about 40?

Secretary WEINBERGER. Yes, I guess so, adding all the alliances together.

Senator WARNER. As such, the action we are taking today does not reduce those commitments, but it impairs the capability with which to fulfill those commitments.

Secretary WEINBERGER. Yes, sir, it does not interfere with the commitments and we are spread, as we have said, somewhat thin, and what we are going on is the assumption that all of these commitments are not going to be required to be fulfilled at any one time. But there simply is no doubt that taking this number of ships out of service, even though some of them are planned to go out within a year or two, does weaken the total naval capability of the United States.

Senator WARNER. You are back to commitment again. I like to use the word capability when I am required to discuss this on the floor of the Senate. This represents reduction of capability and not commitment?

Secretary WEINBERGER. Of course the commitments remain, absolutely.

Senator WARNER. I am not pointing to any particular colleagues, but they say this is a reduction in commitment. It is not. It is a reduction in capability, which in turn degrades our ability to fulfill our commitments.

Secretary WEINBERGER. That is correct, our commitment to NATO remains completely firm. It is a question simply of how do we fulfill it.

Senator WARNER. Just as a wrap-up, I have tried to go through all of the figures and keep careful notes. What is your target for outlays in the aggregate which you presented today? What do you think it added up to in outlays?

Secretary WEINBERGER. The reductions that we have made?

Senator WARNER. Yes.

Secretary WEINBERGER. It is $3.2 billion excluding pay adjustments.

Senator WARNER. So it ranges from a $3.7 billion to a $3.2 billion reduction in outlay.

The pay, we all seem to agree on, is $3.9 billion, is that right?

Secretary WEINBERGER. Yes, sir.

Senator WARNER. So depending on which assumption we use, we are somewhere in $7.1 billion to $7.6 billion. That is the range we are dealing with today in outlay reductions?

Secretary WEINBERGER. Yes, sir.

Senator WARNER. That translates into a 7.7-overall percent in real growth?

Secretary WEINBERGER. Yes, sir.

Senator WARNER. That is down from the original goal of what?

Secretary WEINBERGER. The original goal was somewhere around 10.2.

Mr. CARLUCCI. It was 10.5.

Secretary WEINBERGER. Yes, 10.5.

When you add the pay into that, you do get that reduction down to 7.2.

Senator WARNER. OK. So 7.2 reflects the aggregate of the 050 account and the pay down to 7.2 percent?

Secretary WEINBERGER. Yes, sir.

Senator WARNER. Then in your obligational authority you have a 9.1-percent real growth?

Secretary WEINBERGER. Yes, 10.3 percent increase in total obligational authority, down from 13.2.

Senator WARNER. OK, down from 13.2.

Secretary WEINBERGER. I am sorry, that is the Department of Defense account alone and not the total 050. I do not have the figures for the total 050. That adds the strategic resources and the Department of Energy.

Senator WARNER. To 13.2?

Secretary WEINBERGER. No, 13.2 was DOD's total obligational authority growth. That is now down to 10.3 on the basis of the revisions submitted this morning.

Senator WARNER. Thank you. I just wanted to get them straight, Mr. Chairman.

Senator DENTON. Question, Mr. Chairman. Is this going to be the last appearance of our distinguished Chairman of the Joint Chiefs of Staff before this committee?

Chairman TOWER. It is going to be his last appearance before the committee, yes.

Senator DENTON. I thought the Chairman would not be seeing us any more, and if not I thought we ought to say something to him.

Chairman TOWER. His last appearance before the committee as the Chairman of the Joint Chiefs of Staff.

Senator WARNER. I think he hopes it is.

Senator DENTON. He has had a very distinguished career, with a tremendous weight of responsibility.

Chairman TOWER. I would join us all in wishing him the very best. We are sorry that we have to get you back here for this last appearance under these trying circumstances.

Senator WARNER. I certainly would like to associate myself with the distinguished chairman and the Senator from Alabama in saying, well done, under Navy standards.

General JONES. Thank you, Mr. Chairman.

Senator HUMPHREY. Mr. Chairman, I would like to add my thanks, too. General Jones and I have disagreed publicly, but I certainly do not fault his good faith and his efforts.

Chairman TOWER. Gentlemen, thank you for appearing before us today. This terminates the hearing on this issue.

[Questions for the record follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN C. STENNIS

CUTTING NATIONAL GUARD AND RESERVE FUNDING

Senator STENNIS. Mr. Secretary, your proposal would cut National Guard and Reserve funding some $211 million.

In your original budget request, the share going for the Guard and Reserve steadily declines from 3.9 percent in fiscal year 1981 to 3.2 percent in fiscal year 1983. Even though they get only about 3 percent of the budget, 6 percent of the total outlay reduction is proposed to be made in the Guard and Reserve.

Does all this reflect a lowering of the priorities for the Guard and Reserve?

Answer. No, the reduction in funding of the National Guard and Reserve does not reflect a lowering of the priorities for the Guard and Reserve. There is a valid military requirement for the higher strengths, increased training, and additional clothing and equipment in the Guard and Reserve. In fact, in the area of military personnel costs alone, the Reserve components received over 17 percent of the $6.4 billion

increase between fiscal year 1982 and fiscal year 1983. However, the Department is now faced with the realities that the necessary funding may not be available to adequately finance all approved programs in the President's budget. Consequently, there has been a requirement to identify potential areas for reducing active, as well as Reserve, programs. While nearly 6 percent of the total outlay reduction is proposed to be made in the Guard and Reserve, this represents only about 2.8 percent of the total reduction in terms of total obligational authority.

Senator STENNIS. Why can't other reductions be made in other areas to preserve the Guard and Reserve and strengthen them?

Answer. Let me make two points in answer to your question. First we have made reductions in other areas—reductions that hurt. Second we believe we are preserving and enhancing the Guard and Reserve. As noted in my response to your question, just in military personnel costs the Guard and Reserve components received over 17 percent of the $6.4 billion increase between fiscal year 1982 and fiscal year 1983. Further, a considerable portion of what we are proposing by way of decreases in the Guard and Reserve is deferrals to later years, not reductions in perpetuity. In sum our proposed adjustments are in no sense a derogation of the value of the Guard and Reserve.

GUARD/RESERVE MANPOWER CUTS

Senator STENNIS. Most of the DOD proposed Guard/Reserve cuts are in manpower. With the improved recruiting and retention that seems to go along with unemployment, would it not be better to let the Guard/Reserve use the opportunity to strengthen their units and come closer to their overall required strength?

Answer. I agree that manpower is the key to a strengthened Guard and Reserve. In recognition of that fact, we have proposed only 38 percent of the proposed $211 million Guard and Reserve decrease as reductions in drill strength. In essence that means that 20,000 of our planned 30,700 drill strength increase in fiscal year 1983 will be deferred until later years, and I emphasize "deferred." What we will experience is some undermanning in certain units over the next several years.

Another 28 percent of the reduction affects full-time manning. Where we planned to increase full-time manning by almost 5,000 between fiscal year 1982 and fiscal year 1983, we will not phase-in the increase during subsequent years. This will cost us in terms of training and readiness since these functions will be accomplished less efficiently by part time personnel.

The remaining 34 percent of the reduction will be taken in training, clothing, and spare parts. Here again we will be slowing needed improvements.

I want to emphasize that none of these Reserve/Guard reductions are desirable. There are penalties to be paid in each case. But we are prepared to bear them.

Chairman TOWER. The committee will stand in recess until 2 o'clock, at which time we will mark up the proposed amendment.

[Whereupon, at 12:35 p.m., the committee was recessed, to reconvene at 2 p.m. the same day.]

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